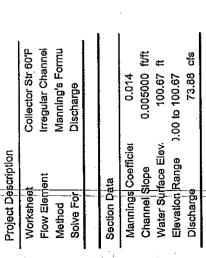
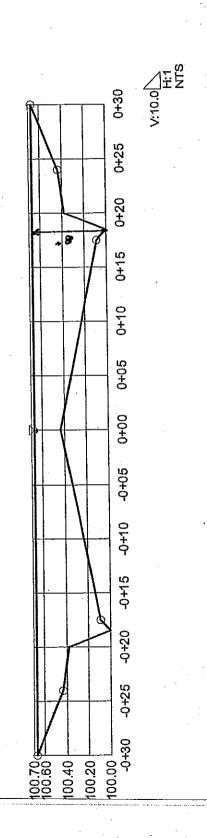
Slope (fl/fl)   (fl/s)   Area (fl²)   Perimeter (fl) (fl)	<u> </u>	. L.		) ( -   <del> </del> (			1/	Vetted	Тор	1
(fift)         (fit)         (ft)         (ft)           0.013700         114.02         6.17         18.5         50.12         50.00           0.013800         114.44         6.19         18.5         50.12         50.00           0.014000         115.27         6.24         18.5         50.12         50.00           0.014100         115.68         8.26         18.5         50.12         50.00           0.014200         116.09         6.28         18.5         50.12         50.00           0.014300         116.49         6.30         18.5         50.12         50.00           0.014400         116.90         6.33         18.5         50.12         50.00           0.014500         117.31         6.35         18.5         50.12         50.00           0.014600         117.71         6.37         18.5         50.12         50.00           0.014800         118.51         6.41         18.5         50.12         50.00           0.015000         119.31         6.46         18.5         50.12         50.00           0.015200         120.10         6.50         18.5         50.12         50.00           0.015		P								
0.013800			(CIS)	(105)				(ft)		
1.0.13600	0.01370	0	114.02	6.17		18.5		50.12		
0.014000	0.01380	이	114.44			18.5		50.12		1
D.014100	0.01390	0	114.85	6.21		18.5		50.12	50.00	
D.014200	0.01400	0	115.27	6.24		18.5		50.12	50.00	1
D.0144200		0	115.68	6.26	ì	18.5		50.12	50.00	
0.014400	0.01420	0	116.09	6.28		18.5	ļ	50.12	50.00	
D.014500	0.01430	0	116.49		1	18.5	İ	50.12	50.00	1
0.014600         117.71         6.37         18.5         50.12         50.00           0.014700         118.11         6.39         18.5         50.12         50.00           0.014800         118.51         6.41         18.5         50.12         50.00           0.015000         118.91         6.43         18.5         50.12         50.00           0.015000         119.71         6.48         18.5         50.12         50.00           0.015200         120.10         6.50         18.5         50.12         50.00           0.015300         120.50         6.52         18.5         50.12         50.00           0.015400         120.89         6.54         18.5         50.12         50.00           0.015500         121.28         6.56         18.5         50.12         50.00           0.015700         122.06         6.60         18.5         50.12         50.00           0.015800         122.45         6.63         18.5         50.12         50.00           0.016900         123.22         6.67         18.5         50.12         50.00           0.016900         123.61         6.69         18.5         50.12 <t< td=""><td>0.01440</td><td>0</td><td>116.90</td><td>6.33</td><td>Į</td><td>18.5</td><td></td><td>50.12</td><td>50.00</td><td>1</td></t<>	0.01440	0	116.90	6.33	Į	18.5		50.12	50.00	1
0.014700         118.11         6.39         18.5         50.12         50.00           0.014800         118.51         6.41         18.5         50.12         50.00           0.014900         118.91         6.43         18.5         50.12         50.00           0.015000         119.71         6.48         18.5         50.12         50.00           0.015200         120.10         6.50         18.5         50.12         50.00           0.015200         120.10         6.50         18.5         50.12         50.00           0.015400         120.89         6.54         18.5         50.12         50.00           0.015500         121.28         6.56         18.5         50.12         50.00           0.015700         122.06         6.60         18.5         50.12         50.00           0.015800         122.45         6.63         18.5         50.12         50.00           0.015900         122.84         6.65         18.5         50.12         50.00           0.016000         123.22         6.67         18.5         50.12         50.00           0.016200         123.99         6.71         18.5         50.12 <t< td=""><td>0.01450</td><td>0</td><td>117.31</td><td>6.35</td><td></td><td>18.5</td><td></td><td>50.12</td><td>50.00</td><td>1</td></t<>	0.01450	0	117.31	6.35		18.5		50.12	50.00	1
0.014800         118.51         6.41         18.5         50.12         50.00           0.014900         118.91         6.43         18.5         50.12         50.00           0.015000         119.31         6.46         18.5         50.12         50.00           0.015100         119.71         6.48         18.5         50.12         50.00           0.015200         120.10         6.50         18.5         50.12         50.00           0.015300         120.50         6.52         18.5         50.12         50.00           0.015400         120.89         6.54         18.5         50.12         50.00           0.015500         121.67         6.58         18.5         50.12         50.00           0.015700         122.06         6.60         18.5         50.12         50.00           0.015800         122.45         6.63         18.5         50.12         50.00           0.016900         123.24         6.65         18.5         50.12         50.00           0.016400         123.99         6.71         18.5         50.12         50.00           0.016500         125.14         6.77         18.5         50.12 <t< td=""><td>0.01460</td><td>0</td><td>117.71</td><td>6.37</td><td>1</td><td>18.5</td><td></td><td>50.12</td><td>50.00</td><td>1</td></t<>	0.01460	0	117.71	6.37	1	18.5		50.12	50.00	1
0.014900         118.91         6.43         18.5         50.12         50.00           0.015000         119.31         6.46         18.5         50.12         50.00           0.015100         119.71         6.48         18.5         50.12         50.00           0.015200         120.10         6.50         18.5         50.12         50.00           0.015300         120.50         6.52         18.5         50.12         50.00           0.015500         121.28         6.56         18.5         50.12         50.00           0.015600         121.67         6.58         18.5         50.12         50.00           0.015700         122.06         6.60         18.5         50.12         50.00           0.015900         122.45         6.63         18.5         50.12         50.00           0.016900         123.22         6.67         18.5         50.12         50.00           0.016200         123.99         6.71         18.5         50.12         50.00           0.016300         124.37         6.73         18.5         50.12         50.00           0.016600         125.51         6.75         18.5         50.12 <t< td=""><td>0.01470</td><td>0</td><td>118.11</td><td>6.39</td><td>l</td><td>18.5</td><td>l</td><td>50.12</td><td>50.00</td><td>1</td></t<>	0.01470	0	118.11	6.39	l	18.5	l	50.12	50.00	1
3.015000         119.31         6.46         18.5         50.12         50.00           3.015100         119.71         6.48         18.5         50.12         50.00           3.015200         120.10         6.50         18.5         50.12         50.00           3.015300         120.50         6.52         18.5         50.12         50.00           3.015500         121.28         6.56         18.5         50.12         50.00           3.015600         121.67         6.58         18.5         50.12         50.00           3.015700         122.06         6.60         18.5         50.12         50.00           3.015800         122.45         6.63         18.5         50.12         50.00           3.016900         123.22         6.67         18.5         50.12         50.00           3.016000         123.29         6.71         18.5         50.12         50.00           3.016400         124.37         6.73         18.5         50.12         50.00           3.016500         125.14         6.77         18.5         50.12         50.00           3.016600         125.51         6.79         18.5         50.12 <t< td=""><td>0.01480</td><td>0</td><td>118.51</td><td>6.41</td><td>1</td><td>18.5</td><td>1</td><td>50.12</td><td>50.00</td><td>1</td></t<>	0.01480	0	118.51	6.41	1	18.5	1	50.12	50.00	1
3.015100         119.71         6.48         18.5         50.12         50.00           3.015200         120.10         6.50         18.5         50.12         50.00           3.015300         120.50         6.52         18.5         50.12         50.00           3.015400         120.89         6.54         18.5         50.12         50.00           3.015500         121.28         6.56         18.5         50.12         50.00           3.015600         121.67         6.58         18.5         50.12         50.00           3.015800         122.45         6.63         18.5         50.12         50.00           3.015900         122.84         6.65         18.5         50.12         50.00           3.016000         123.22         6.67         18.5         50.12         50.00           3.016400         123.99         6.71         18.5         50.12         50.00           3.016400         124.76         6.75         18.5         50.12         50.00           3.016600         125.54         6.77         18.5         50.12         50.00           3.016700         125.89         6.81         18.5         50.12 <t< td=""><td>0.01490</td><td>0</td><td>118.91</td><td>6.43</td><td></td><td>18.5</td><td></td><td>50.12</td><td>50.00</td><td>) [</td></t<>	0.01490	0	118.91	6.43		18.5		50.12	50.00	) [
0.015200         120.10         6.50         18.5         50.12         50.00           0.015300         120.50         6.52         18.5         50.12         50.00           0.015400         120.89         6.54         18.5         50.12         50.00           0.015500         121.28         6.56         18.5         50.12         50.00           0.015700         122.06         6.60         18.5         50.12         50.00           0.015800         122.45         6.63         18.5         50.12         50.00           0.015900         122.84         6.65         18.5         50.12         50.00           0.016000         123.22         6.67         18.5         50.12         50.00           0.016200         123.99         6.71         18.5         50.12         50.00           0.016300         124.37         6.73         18.5         50.12         50.00           0.016600         125.14         6.77         18.5         50.12         50.00           0.016600         125.51         6.79         18.5         50.12         50.00           0.016800         126.64         6.85         18.5         50.12 <t< td=""><td>0.01500</td><td>0</td><td>119.31</td><td>6.46</td><td></td><td>18.5</td><td>١</td><td>50.12</td><td>50.00</td><td>)</td></t<>	0.01500	0	119.31	6.46		18.5	١	50.12	50.00	)
0.015300         120.50         6.52         18.5         50.12         50.00           0.015400         120.89         6.54         18.5         50.12         50.00           0.015500         121.28         6.56         18.5         50.12         50.00           0.015700         122.06         6.60         18.5         50.12         50.00           0.015800         122.45         6.63         18.5         50.12         50.00           0.015900         122.84         6.65         18.5         50.12         50.00           0.016000         123.22         6.67         18.5         50.12         50.00           0.016100         123.61         6.69         18.5         50.12         50.00           0.016200         123.99         6.71         18.5         50.12         50.00           0.016300         124.37         6.73         18.5         50.12         50.00           0.016600         125.14         6.77         18.5         50.12         50.00           0.016600         125.51         6.79         18.5         50.12         50.00           0.016800         126.64         6.81         18.5         50.12 <t< td=""><td>0.01510</td><td>00</td><td>119.71</td><td>6.48</td><td></td><td>18.5</td><td>l</td><td>50.12</td><td>50.00</td><td>) [</td></t<>	0.01510	00	119.71	6.48		18.5	l	50.12	50.00	) [
3.015400         120.89         6.54         18.5         50.12         50.00           3.015500         121.28         6.56         18.5         50.12         50.00           3.015600         121.67         6.58         18.5         50.12         50.00           3.015700         122.06         6.60         18.5         50.12         50.00           3.015800         122.45         6.63         18.5         50.12         50.00           3.015900         122.84         6.65         18.5         50.12         50.00           3.016000         123.22         6.67         18.5         50.12         50.00           3.016100         123.61         6.69         18.5         50.12         50.00           3.016200         123.99         6.71         18.5         50.12         50.00           3.016300         124.37         6.73         18.5         50.12         50.00           3.016600         125.14         6.77         18.5         50.12         50.00           3.016700         125.89         6.81         18.5         50.12         50.00           3.016800         126.64         6.85         18.5         50.12 <t< td=""><td>0.01520</td><td>00</td><td>120.10</td><td>6.50</td><td></td><td>18.5</td><td>Ì</td><td>50.12</td><td>50.00</td><td>) [</td></t<>	0.01520	00	120.10	6.50		18.5	Ì	50.12	50.00	) [
3.015500         121.28         6.56         18.5         50.12         50.00           3.015600         121.67         6.58         18.5         50.12         50.00           3.015700         122.06         6.60         18.5         50.12         50.00           3.015800         122.45         6.63         18.5         50.12         50.00           3.015900         122.84         6.65         18.5         50.12         50.00           3.016000         123.22         6.67         18.5         50.12         50.00           3.016100         123.61         6.69         18.5         50.12         50.00           3.016200         123.99         6.71         18.5         50.12         50.00           3.016300         124.37         6.73         18.5         50.12         50.00           3.016400         124.76         6.75         18.5         50.12         50.00           3.016600         125.14         6.77         18.5         50.12         50.00           3.016700         125.89         6.81         18.5         50.12         50.00           3.016800         126.64         6.85         18.5         50.12 <t< td=""><td>0.01530</td><td>00</td><td>120.50</td><td>6.52</td><td>:</td><td>18.5</td><td>-</td><td>50.12</td><td>50.00</td><td>)  </td></t<>	0.01530	00	120.50	6.52	:	18.5	-	50.12	50.00	)
3.015600         121.67         6.58         18.5         50.12         50.00           3.015700         122.06         6.60         18.5         50.12         50.00           3.015800         122.45         6.63         18.5         50.12         50.00           3.015900         122.84         6.65         18.5         50.12         50.00           3.016000         123.22         6.67         18.5         50.12         50.00           3.016100         123.61         6.69         18.5         50.12         50.00           3.016200         123.99         6.71         18.5         50.12         50.00           3.016300         124.37         6.73         18.5         50.12         50.00           3.016400         124.76         6.75         18.5         50.12         50.00           3.016600         125.51         6.79         18.5         50.12         50.00           3.016800         126.27         6.83         18.5         50.12         50.00           3.016900         126.64         6.85         18.5         50.12         50.00           3.017000         127.02         6.87         18.5         50.12 <t< td=""><td>0.01540</td><td>00</td><td>120.89</td><td>6.54</td><td>ļ</td><td>18.5</td><td></td><td>50.12</td><td>50.00</td><td>)</td></t<>	0.01540	00	120.89	6.54	ļ	18.5		50.12	50.00	)
3.015700         122.06         6.60         18.5         50.12         50.00           3.015800         122.45         6.63         18.5         50.12         50.00           3.015900         122.84         6.65         18.5         50.12         50.00           3.016000         123.22         6.67         18.5         50.12         50.00           3.016200         123.99         6.71         18.5         50.12         50.00           3.016300         124.37         6.73         18.5         50.12         50.00           3.016400         124.76         6.75         18.5         50.12         50.00           3.016600         125.14         6.77         18.5         50.12         50.00           3.016600         125.51         6.79         18.5         50.12         50.00           3.016700         125.89         6.81         18.5         50.12         50.00           3.016800         126.27         6.83         18.5         50.12         50.00           3.017000         127.02         6.87         18.5         50.12         50.00           3.017200         127.76         6.91         18.5         50.12 <t< td=""><td>0.01550</td><td>00</td><td>121.28</td><td>6.56</td><td>3</td><td>18.5</td><td></td><td>50.12</td><td>50.00</td><td>)  </td></t<>	0.01550	00	121.28	6.56	3	18.5		50.12	50.00	)
3.015800         122.45         6.63         18.5         50.12         50.00           3.015900         122.84         6.65         18.5         50.12         50.00           3.016000         123.22         6.67         18.5         50.12         50.00           3.016200         123.99         6.71         18.5         50.12         50.00           3.016300         124.37         6.73         18.5         50.12         50.00           3.016400         124.76         6.75         18.5         50.12         50.00           3.016500         125.14         6.77         18.5         50.12         50.00           3.016600         125.51         6.79         18.5         50.12         50.00           3.016900         126.64         6.85         18.5         50.12         50.00           3.017000         127.02         6.87         18.5         50.12         50.00           3.017200         127.76         6.91         18.5         50.12         50.00           3.017600         129.87         6.95         18.5         50.12         50.00           3.017600         129.24         6.99         18.5         50.12 <t< td=""><td>0.01560</td><td>00</td><td>121.67</td><td>6.58</td><td>3</td><td>18.5</td><td></td><td>50.12</td><td>50.0</td><td>)  </td></t<>	0.01560	00	121.67	6.58	3	18.5		50.12	50.0	)
0.015800         122.45         6.63         18.5         50.12         50.00           0.015900         122.84         6.65         18.5         50.12         50.00           0.016000         123.22         6.67         18.5         50.12         50.00           0.016200         123.99         6.71         18.5         50.12         50.00           0.016300         124.37         6.73         18.5         50.12         50.00           0.016400         124.76         6.75         18.5         50.12         50.00           0.016500         125.14         6.77         18.5         50.12         50.00           0.016600         125.51         6.79         18.5         50.12         50.00           0.016700         125.89         6.81         18.5         50.12         50.00           0.016800         126.27         6.83         18.5         50.12         50.00           0.017000         127.02         6.87         18.5         50.12         50.00           0.017200         127.76         6.91         18.5         50.12         50.00           0.017500         128.87         6.95         18.5         50.12 <t< td=""><td>0.0157</td><td>00</td><td>122.06</td><td>6.60</td><td><u>ا</u>ر</td><td>18.5</td><td>į.</td><td>50.12</td><td>50.0</td><td>۱(</td></t<>	0.0157	00	122.06	6.60	<u>ا</u> ر	18.5	į.	50.12	50.0	۱(
0.016000         123.22         6.67         18.5         50.12         50.00           0.016100         123.61         6.69         18.5         50.12         50.00           0.016200         123.99         6.71         18.5         50.12         50.00           0.016300         124.37         6.73         18.5         50.12         50.00           0.016400         124.76         6.75         18.5         50.12         50.00           0.016500         125.14         6.77         18.5         50.12         50.00           0.016600         125.51         6.79         18.5         50.12         50.00           0.016700         125.89         6.81         18.5         50.12         50.00           0.016800         126.64         6.83         18.5         50.12         50.00           0.017000         127.02         6.87         18.5         50.12         50.00           0.017100         127.76         6.91         18.5         50.12         50.00           0.017400         128.87         6.97         18.5         50.12         50.00           0.017600         129.24         6.99         18.5         50.12 <t< td=""><td></td><td></td><td>122.45</td><td>6.63</td><td>3</td><td>18.5</td><td>;</td><td>50.12</td><td>50.0</td><td>ן כ</td></t<>			122.45	6.63	3	18.5	;	50.12	50.0	ן כ
0.016100         123.61         6.69         18.5         50.12         50.00           0.016200         123.99         6.71         18.5         50.12         50.00           0.016300         124.37         6.73         18.5         50.12         50.00           0.016400         124.76         6.75         18.5         50.12         50.00           0.016500         125.14         6.77         18.5         50.12         50.00           0.016600         125.51         6.79         18.5         50.12         50.00           0.016700         125.89         6.81         18.5         50.12         50.00           0.016800         126.27         6.83         18.5         50.12         50.00           0.016900         126.64         6.85         18.5         50.12         50.00           0.017000         127.02         6.87         18.5         50.12         50.00           0.017100         127.76         6.91         18.5         50.12         50.00           0.017300         128.87         6.95         18.5         50.12         50.00           0.017600         129.24         6.99         18.5         50.12 <t< td=""><td>0.0159</td><td>οÓ</td><td>122.84</td><td>6.65</td><td>5</td><td>18.5</td><td>;  </td><td>50.12</td><td>50.0</td><td>o  </td></t<>	0.0159	οÓ	122.84	6.65	5	18.5	;	50.12	50.0	o
0.016200         123.99         6.71         18.5         50.12         50.00           0.016300         124.37         6.73         18.5         50.12         50.00           0.016400         124.76         6.75         18.5         50.12         50.00           0.016500         125.14         6.77         18.5         50.12         50.00           0.016600         125.51         6.79         18.5         50.12         50.00           0.016700         125.89         6.81         18.5         50.12         50.00           0.016800         126.27         6.83         18.5         50.12         50.00           0.016900         126.64         6.85         18.5         50.12         50.00           0.017000         127.02         6.87         18.5         50.12         50.00           0.017100         127.39         6.89         18.5         50.12         50.00           0.017200         127.76         6.91         18.5         50.12         50.00           0.017400         128.87         6.97         18.5         50.12         50.00           0.017600         129.24         6.99         18.5         50.12 <t< td=""><td>1</td><td>- 1</td><td>123.22</td><td>6.67</td><td>1</td><td>18.5</td><td>; </td><td>50.12</td><td>50.0</td><td>0  </td></t<>	1	- 1	123.22	6.67	1	18.5	;	50.12	50.0	0
0.016300         124.37         6.73         18.5         50.12         50.00           0.016400         124.76         6.75         18.5         50.12         50.00           0.016500         125.14         6.77         18.5         50.12         50.00           0.016600         125.51         6.79         18.5         50.12         50.00           0.016800         126.27         6.83         18.5         50.12         50.00           0.016900         126.64         6.85         18.5         50.12         50.00           0.017000         127.02         6.87         18.5         50.12         50.00           0.017100         127.39         6.89         18.5         50.12         50.00           0.017200         127.76         6.91         18.5         50.12         50.00           0.017300         128.13         6.93         18.5         50.12         50.00           0.017400         128.50         6.95         18.5         50.12         50.00           0.017600         129.24         6.99         18.5         50.12         50.00           0.017900         130.34         7.05         18.5         50.12 <t< td=""><td>0.0161</td><td>00</td><td>123.61</td><td>6.69</td><td>∍ </td><td>18.5</td><td>ş </td><td>50.12</td><td>50.0</td><td>0  </td></t<>	0.0161	00	123.61	6.69	∍	18.5	ş	50.12	50.0	0
0.016400         124.76         6.75         18.5         50.12         50.00           0.016500         125.14         6.77         18.5         50.12         50.00           0.016600         125.51         6.79         18.5         50.12         50.00           0.016700         125.89         6.81         18.5         50.12         50.00           0.016800         126.27         6.83         18.5         50.12         50.00           0.016900         126.64         6.85         18.5         50.12         50.00           0.017000         127.02         6.87         18.5         50.12         50.00           0.017000         127.76         6.91         18.5         50.12         50.00           0.017300         128.13         6.93         18.5         50.12         50.00           0.017400         128.50         6.95         18.5         50.12         50.00           0.017600         128.87         6.97         18.5         50.12         50.00           0.017700         129.61         7.01         18.5         50.12         50.00           0.017800         129.97         7.03         18.5         50.12 <t< td=""><td>0.0162</td><td>00</td><td>123.99</td><td>6.7</td><td>ı</td><td>18.5</td><td>1</td><td>50.12</td><td>50.0</td><td>0</td></t<>	0.0162	00	123.99	6.7	ı	18.5	1	50.12	50.0	0
0.016500         125.14         6.77         18.5         50.12         50.00           0.016600         125.51         6.79         18.5         50.12         50.00           0.016700         125.89         6.81         18.5         50.12         50.00           0.016800         126.27         6.83         18.5         50.12         50.00           0.016900         126.64         6.85         18.5         50.12         50.00           0.017000         127.02         6.87         18.5         50.12         50.00           0.017100         127.76         6.91         18.5         50.12         50.00           0.017200         127.76         6.91         18.5         50.12         50.00           0.017300         128.13         6.93         18.5         50.12         50.00           0.017400         128.50         6.95         18.5         50.12         50.00           0.017600         128.87         6.97         18.5         50.12         50.00           0.017700         129.61         7.01         18.5         50.12         50.00           0.017800         129.97         7.03         18.5         50.12 <t< td=""><td>0.0163</td><td>00</td><td>124.37</td><td>6.73</td><td>3</td><td>18.5</td><td>5</td><td>50.12</td><td>50.0</td><td>0  </td></t<>	0.0163	00	124.37	6.73	3	18.5	5	50.12	50.0	0
0.016500         125.14         6.77         18.5         50.12         50.00           0.016600         125.51         6.79         18.5         50.12         50.00           0.016700         125.89         6.81         18.5         50.12         50.00           0.016800         126.27         6.83         18.5         50.12         50.00           0.016900         126.64         6.85         18.5         50.12         50.00           0.017000         127.02         6.87         18.5         50.12         50.00           0.017100         127.39         6.89         18.5         50.12         50.00           0.017200         127.76         6.91         18.5         50.12         50.00           0.017300         128.13         6.93         18.5         50.12         50.00           0.017400         128.87         6.95         18.5         50.12         50.00           0.017500         128.87         6.97         18.5         50.12         50.00           0.017700         129.24         6.99         18.5         50.12         50.00           0.017800         129.97         7.03         18.5         50.12 <t< td=""><td>0.0164</td><td>00</td><td>124.76</td><td>6.75</td><td>5</td><td>18.5</td><td>5</td><td>50.12</td><td>50.0</td><td>0  </td></t<>	0.0164	00	124.76	6.75	5	18.5	5	50.12	50.0	0
3.016700         125.89         6.81         18.5         50.12         50.00           3.016800         126.27         6.83         18.5         50.12         50.00           3.016900         126.64         6.85         18.5         50.12         50.00           3.017000         127.02         6.87         18.5         50.12         50.00           3.017100         127.39         6.89         18.5         50.12         50.00           3.017200         127.76         6.91         18.5         50.12         50.00           3.017300         128.13         6.93         18.5         50.12         50.00           3.017400         128.50         6.95         18.5         50.12         50.00           3.017500         128.87         6.97         18.5         50.12         50.00           3.017600         129.24         6.99         18.5         50.12         50.00           3.017700         129.61         7.01         18.5         50.12         50.00           3.01800         130.34         7.05         18.5         50.12         50.00           3.01800         130.70         7.07         18.5         50.12	i	- 1	125.14	6.77	7	18.5	5	50.12	50.0	0
0.016800         126.27         6.83         18.5         50.12         50.00           0.016900         126.64         6.85         18.5         50.12         50.00           0.017000         127.02         6.87         18.5         50.12         50.00           0.017100         127.39         6.89         18.5         50.12         50.00           0.017200         127.76         6.91         18.5         50.12         50.00           0.017300         128.13         6.93         18.5         50.12         50.00           0.017400         128.50         6.95         18.5         50.12         50.00           0.017500         128.87         6.97         18.5         50.12         50.00           0.017600         129.24         6.99         18.5         50.12         50.00           0.017700         129.61         7.01         18.5         50.12         50.00           0.017800         129.97         7.03         18.5         50.12         50.00           0.018000         130.34         7.05         18.5         50.12         50.00           0.018000         131.06         7.09         18.5         50.12 <t< td=""><td>0.0166</td><td>00</td><td>125.51</td><td>6.79</td><td>9</td><td>18.5</td><td>5</td><td>50.12</td><td>50.0</td><td>0</td></t<>	0.0166	00	125.51	6.79	9	18.5	5	50.12	50.0	0
3.016900         126.64         6.85         18.5         50.12         50.00           3.017000         127.02         6.87         18.5         50.12         50.00           3.017100         127.39         6.89         18.5         50.12         50.00           3.017200         127.76         6.91         18.5         50.12         50.00           3.017300         128.13         6.93         18.5         50.12         50.00           3.017400         128.50         6.95         18.5         50.12         50.00           3.017500         128.87         6.97         18.5         50.12         50.00           3.017600         129.24         6.99         18.5         50.12         50.00           3.017700         129.61         7.01         18.5         50.12         50.00           3.017800         129.97         7.03         18.5         50.12         50.00           3.018000         130.34         7.05         18.5         50.12         50.00           3.018000         130.70         7.07         18.5         50.12         50.00           3.018200         131.42         7.11         18.5         50.12 <t< td=""><td>0.0167</td><td>00</td><td>125.89</td><td>6.8°</td><td>1</td><td>18.5</td><td>5</td><td>50.12</td><td>50.0</td><td>0</td></t<>	0.0167	00	125.89	6.8°	1	18.5	5	50.12	50.0	0
0.017000         127.02         6.87         18.5         50.12         50.00           0.017100         127.39         6.89         18.5         50.12         50.00           0.017200         127.76         6.91         18.5         50.12         50.00           0.017300         128.13         6.93         18.5         50.12         50.00           0.017400         128.50         6.95         18.5         50.12         50.00           0.017500         128.87         6.97         18.5         50.12         50.00           0.017600         129.24         6.99         18.5         50.12         50.00           0.017700         129.61         7.01         18.5         50.12         50.00           0.017800         129.97         7.03         18.5         50.12         50.00           0.017900         130.34         7.05         18.5         50.12         50.00           0.018000         130.70         7.07         18.5         50.12         50.00           0.018200         131.42         7.11         18.5         50.12         50.00           0.018400         132.14         7.15         18.5         50.12 <t< td=""><td>0.0168</td><td>00</td><td>126.27</td><td>6.8</td><td>3</td><td>18.</td><td>5</td><td>50.12</td><td>50.0</td><td>0</td></t<>	0.0168	00	126.27	6.8	3	18.	5	50.12	50.0	0
0.017100         127.39         6.89         18.5         50.12         50.00           0.017200         127.76         6.91         18.5         50.12         50.00           0.017300         128.13         6.93         18.5         50.12         50.00           0.017400         128.50         6.95         18.5         50.12         50.00           0.017500         128.87         6.97         18.5         50.12         50.00           0.017600         129.24         6.99         18.5         50.12         50.00           0.017700         129.61         7.01         18.5         50.12         50.00           0.017800         129.97         7.03         18.5         50.12         50.00           0.017900         130.34         7.05         18.5         50.12         50.00           0.018000         130.70         7.07         18.5         50.12         50.00           0.018200         131.42         7.11         18.5         50.12         50.00           0.018400         132.14         7.13         18.5         50.12         50.00           0.018500         132.50         7.17         18.5         50.12 <t< td=""><td>0.0169</td><td>00</td><td>126.64</td><td>6.8</td><td>5</td><td>18.</td><td>5</td><td>50.12</td><td>50.0</td><td>0</td></t<>	0.0169	00	126.64	6.8	5	18.	5	50.12	50.0	0
3.017200         127.76         6.91         18.5         50.12         50.00           3.017300         128.13         6.93         18.5         50.12         50.00           3.017400         128.50         6.95         18.5         50.12         50.00           3.017500         128.87         6.97         18.5         50.12         50.00           3.017600         129.24         6.99         18.5         50.12         50.00           3.017700         129.61         7.01         18.5         50.12         50.00           3.017800         129.97         7.03         18.5         50.12         50.00           3.018000         130.34         7.05         18.5         50.12         50.00           3.018000         131.06         7.09         18.5         50.12         50.00           3.018200         131.42         7.11         18.5         50.12         50.00           3.018400         132.14         7.15         18.5         50.12         50.00           3.018500         132.86         7.17         18.5         50.12         50.00           3.018700         133.22         7.21         18.5         50.12 <t< td=""><td>0.0170</td><td>00</td><td>127.02</td><td>6.8</td><td>7</td><td>18.</td><td>5</td><td>50.12</td><td>50.0</td><td>0</td></t<>	0.0170	00	127.02	6.8	7	18.	5	50.12	50.0	0
3.017200         127.76         6.91         18.5         50.12         50.00           3.017300         128.13         6.93         18.5         50.12         50.00           3.017400         128.50         6.95         18.5         50.12         50.00           3.017500         128.87         6.97         18.5         50.12         50.00           3.017600         129.24         6.99         18.5         50.12         50.00           3.017700         129.61         7.01         18.5         50.12         50.00           3.017800         129.97         7.03         18.5         50.12         50.00           3.018000         130.34         7.05         18.5         50.12         50.00           3.018000         130.70         7.07         18.5         50.12         50.00           3.018200         131.42         7.11         18.5         50.12         50.00           3.018400         132.14         7.15         18.5         50.12         50.00           3.018500         132.86         7.19         18.5         50.12         50.00           3.018700         133.22         7.21         18.5         50.12 <t< td=""><td></td><td></td><td>127.39</td><td>6.8</td><td>9</td><td>18.</td><td>5</td><td>50.12</td><td>50.0</td><td>0</td></t<>			127.39	6.8	9	18.	5	50.12	50.0	0
0.017400         128.50         6.95         18.5         50.12         50.00           0.017500         128.87         6.97         18.5         50.12         50.00           0.017600         129.24         6.99         18.5         50.12         50.00           0.017700         129.61         7.01         18.5         50.12         50.00           0.017800         129.97         7.03         18.5         50.12         50.00           0.017900         130.34         7.05         18.5         50.12         50.00           0.018000         130.70         7.07         18.5         50.12         50.00           0.018100         131.06         7.09         18.5         50.12         50.00           0.018200         131.42         7.11         18.5         50.12         50.00           0.018300         131.78         7.13         18.5         50.12         50.00           0.018400         132.14         7.15         18.5         50.12         50.00           0.018500         132.86         7.19         18.5         50.12         50.00           0.018700         133.22         7.21         18.5         50.12 <t< td=""><td></td><td></td><td>127.76</td><td>6.9</td><td>1</td><td>18.</td><td>5</td><td>50.12</td><td>50.0</td><td>0</td></t<>			127.76	6.9	1	18.	5	50.12	50.0	0
0.017500         128.87         6.97         18.5         50.12         50.00           0.017600         129.24         6.99         18.5         50.12         50.00           0.017700         129.61         7.01         18.5         50.12         50.00           0.017800         129.97         7.03         18.5         50.12         50.00           0.017900         130.34         7.05         18.5         50.12         50.00           0.018000         130.70         7.07         18.5         50.12         50.00           0.018100         131.06         7.09         18.5         50.12         50.00           0.018200         131.42         7.11         18.5         50.12         50.00           0.018300         131.78         7.13         18.5         50.12         50.00           0.018500         132.50         7.17         18.5         50.12         50.00           0.018600         132.86         7.19         18.5         50.12         50.00           0.018700         133.22         7.21         18.5         50.12         50.00           0.018800         133.57         7.23         18.5         50.12 <t< td=""><td>0.0173</td><td>00</td><td>128.13</td><td>6.9</td><td>3</td><td>18.</td><td>5</td><td>50.12</td><td>50.0</td><td>Ó</td></t<>	0.0173	00	128.13	6.9	3	18.	5	50.12	50.0	Ó
0.017600     129.24     6.99     18.5     50.12     50.00       0.017700     129.61     7.01     18.5     50.12     50.00       0.017800     129.97     7.03     18.5     50.12     50.00       0.017900     130.34     7.05     18.5     50.12     50.00       0.018000     130.70     7.07     18.5     50.12     50.00       0.018100     131.06     7.09     18.5     50.12     50.00       0.018200     131.42     7.11     18.5     50.12     50.00       0.018300     131.78     7.13     18.5     50.12     50.00       0.018400     132.14     7.15     18.5     50.12     50.00       0.018500     132.50     7.17     18.5     50.12     50.00       0.018600     132.86     7.19     18.5     50.12     50.00       0.018700     133.22     7.21     18.5     50.12     50.00       0.018800     133.57     7.23     18.5     50.12     50.00	0.0174	00	128.50	6.9	5	18.	5	50.12	50.0	0
0.017700         129.61         7.01         18.5         50.12         50.00           0.017800         129.97         7.03         18.5         50.12         50.00           0.017900         130.34         7.05         18.5         50.12         50.00           0.018000         130.70         7.07         18.5         50.12         50.00           0.018100         131.06         7.09         18.5         50.12         50.00           0.018200         131.42         7.11         18.5         50.12         50.00           0.018300         131.78         7.13         18.5         50.12         50.00           0.018400         132.14         7.15         18.5         50.12         50.00           0.018500         132.50         7.17         18.5         50.12         50.00           0.018700         133.22         7.21         18.5         50.12         50.00           0.018800         133.57         7.23         18.5         50.12         50.00	0.0175	00	128.87	6.9	7	18.	5	50.12	50.0	0
0.017800         129.97         7.03         18.5         50.12         50.00           0.017900         130.34         7.05         18.5         50.12         50.00           0.018000         130.70         7.07         18.5         50.12         50.00           0.018100         131.06         7.09         18.5         50.12         50.00           0.018200         131.42         7.11         18.5         50.12         50.00           0.018300         131.78         7.13         18.5         50.12         50.00           0.018400         132.14         7.15         18.5         50.12         50.00           0.018500         132.50         7.17         18.5         50.12         50.00           0.018600         132.86         7.19         18.5         50.12         50.00           0.018700         133.22         7.21         18.5         50.12         50.00           0.018800         133.57         7.23         18.5         50.12         50.00	0.0176	00	129.24	6.9	9	18.	5	50.12	50.0	00
0.017900     130.34     7.05     18.5     50.12     50.00       0.018000     130.70     7.07     18.5     50.12     50.00       0.018100     131.06     7.09     18.5     50.12     50.00       0.018200     131.42     7.11     18.5     50.12     50.00       0.018300     131.78     7.13     18.5     50.12     50.00       0.018400     132.14     7.15     18.5     50.12     50.00       0.018500     132.50     7.17     18.5     50.12     50.00       0.018600     132.86     7.19     18.5     50.12     50.00       0.018700     133.22     7.21     18.5     50.12     50.00       0.018800     133.57     7.23     18.5     50.12     50.00	0.0177	00	129.61	7.0	1	18.	5	50.12	50.0	00
0.018000     130.70     7.07     18.5     50.12     50.00       0.018100     131.06     7.09     18.5     50.12     50.00       0.018200     131.42     7.11     18.5     50.12     50.00       0.018300     131.78     7.13     18.5     50.12     50.00       0.018400     132.14     7.15     18.5     50.12     50.00       0.018500     132.50     7.17     18.5     50.12     50.00       0.018600     132.86     7.19     18.5     50.12     50.00       0.018700     133.22     7.21     18.5     50.12     50.00       0.018800     133.57     7.23     18.5     50.12     50.00	0.0178	00	129.97	7.0	3	18.	5	50.12	50.0	00
0.018100     131.06     7.09     18.5     50.12     50.00       0.018200     131.42     7.11     18.5     50.12     50.00       0.018300     131.78     7.13     18.5     50.12     50.00       0.018400     132.14     7.15     18.5     50.12     50.00       0.018500     132.50     7.17     18.5     50.12     50.00       0.018600     132.86     7.19     18.5     50.12     50.00       0.018700     133.22     7.21     18.5     50.12     50.00       0.018800     133.57     7.23     18.5     50.12     50.00	0.0179	00	130.34	7.0	5	18.	5	50.12	50.0	00
0.018200     131.42     7.11     18.5     50.12     50.00       0.018300     131.78     7.13     18.5     50.12     50.00       0.018400     132.14     7.15     18.5     50.12     50.00       0.018500     132.50     7.17     18.5     50.12     50.00       0.018600     132.86     7.19     18.5     50.12     50.00       0.018700     133.22     7.21     18.5     50.12     50.00       0.018800     133.57     7.23     18.5     50.12     50.00	0.0180	000	130.70	7.0	7	18.	5	50.12	50.0	00
0.018300     131.78     7.13     18.5     50.12     50.00       0.018400     132.14     7.15     18.5     50.12     50.00       0.018500     132.50     7.17     18.5     50.12     50.00       0.018600     132.86     7.19     18.5     50.12     50.00       0.018700     133.22     7.21     18.5     50.12     50.00       0.018800     133.57     7.23     18.5     50.12     50.00	0.0181	00	131.00	7.0	9	18.	5	50.12	50.0	00
0.018400     132.14     7.15     18.5     50.12     50.00       0.018500     132.50     7.17     18.5     50.12     50.00       0.018600     132.86     7.19     18.5     50.12     50.00       0.018700     133.22     7.21     18.5     50.12     50.00       0.018800     133.57     7.23     18.5     50.12     50.00	0.0182	200	131.42	7.1	1	18.	5	50.12	50.0	00
3.018500     132.50     7.17     18.5     50.12     50.00       3.018600     132.86     7.19     18.5     50.12     50.00       3.018700     133.22     7.21     18.5     50.12     50.00       3.018800     133.57     7.23     18.5     50.12     50.00	0.0183	100	131.78	3 7.1	3	18.	5	50.12	50.0	00
0.018600     132.86     7.19     18.5     50.12     50.00       0.018700     133.22     7.21     18.5     50.12     50.00       0.018800     133.57     7.23     18.5     50.12     50.00	0.0184	100	132.14	1 7.1	5	18.	5	50.12	50.0	00
0.018700         133.22         7.21         18.5         50.12         50.00           0.018800         133.57         7.23         18.5         50.12         50.00	0.0185	500	132.5	7.1	7	18.	5		1	00
3.018800     133.57     7.23     18.5     50.12     50.00	0.0186	00	132.80	3 7.1	9	18.	5		ł	00
	0.0187	00	133.2	2 7.2	11	. 18.	5		_	
0.018900 133.93 7.25 18.5 50.12 50.00	0.018	300	133.5	-					1	
	0.0189	000	133.9	3 7.2	25	18.	5	50.12	50.	00

Channel Slope (ft/ft)	Discharge (cfs)	Velocity (ft/s)	Flow Area (ft²)	Wetted Perimeter (ft)	Top Width (ft)
0:019000	134.28	7.27	18.5	50.12	50.00
0.019100	134.63	7.28	18.5	50.12	50.00
0.019200	134.99	7.30	18.5	50.12	50.00
0.019300	135.34	7.32	18.5	50.12	50.00
0.019400	135.69	7.34	18.5	50.12	50.00
0.019500	136.04	7.36	18.5	50.12	50.00
0.019600	136.38	7.38	18.5	50.12	50.00
0.019700	136.73	7.40	18.5	50.12	50.00
0.019800	137.08	7.42	18.5	50.12	50.00
0.019900	137.42	7.44	18.5	50.12	50.00
0.020000	137.77	7.45	18.5	50.12	50.00

# Cross Section for Irregular Channel **Cross Section**





Stanley Consultants, Inc Stanley Stanley Consultants, Inc © Haestad Methods, Inc. 37 Brookside Road Waterbury, CT 06708 USA +1-203-755-1666

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#### Table

#### Rating Table for Irregular Channel

Project Description	<u> </u>
Worksheet	Collector Str 60'F
Flow Element	Irregular Channel
Method	Manning's Formu
Solve For	Discharge

input Data

Water Surface Elev. 00.67 ft

Options

Current Roughness Methoved Lotter's Method
Open Channel Weighting ved Lotter's Method
Closed Channel Weighting Horton's Method

•	Attribute	Minimum	Maximum	Increment
Chan	nel Slope (ft/ft)	0.005000	0.020000	0.000100

0:	Discharge	Volocity	Flow	Wetted	Top
Slope	Discharge (cfs)	(ft/s)	Area	Perimeter	Width
(ft/ft)	(0.0)	(,	(ft²)	(ft)	(ft)
0.005000	73.88	3.58	20.7	60.12	60.00
0.005100	74.61	3.61	20.7	60.12	60.00
0.005200	75.34	3.65	20.7	60.12	60.00
0.005300	76.06	3.68	20.7	60.12	60.00
0.005400	76.78	3.72	20.7	60.12	60.00
0.005500	77.49	3.75	20.7	60,12	60.00
0.005600	78.19	3.79	20.7	60.12	60.00
0.005700	78.88	3.82	20.7	60.12	60.00
0.005800	79.57	3.85	20.7	60.12	60.00
0.005900	80.25	3.89	20.7	60.12	60.00
0.006000	80.93	3.92	20.7	60.12	60.00
0.006100	81.60	3.95	20.7	60.12	60.00
0.006200	82.27	3.98	20.7	60.12	60.00
0.006300	82.93	4.02	20.7	60.12	60.00
0.006400	83.59	4.05	20.7	60.12	60.00
0.006500	84.24	4.08	20.7	60.12	60.00
0.006600	84.88	4.11	20.7	60.12	60.00
0.006700	85.52	4.14	20.7	60.12	60.00
0.006800	86.16	4.17	20.7	60.12	60.00
0.006900	86.79	4.20	20.7	60.12	60.00
0.007000	87.42	4.23	20.7	60.12	60.00
0.007100	88.04	4.26	20.7	60.12	60.00
0.007200	88.66	4.29	20.7	60.12	60.00
0.007300	89.27	4.32	20.7	60.12	60.00
0.007400	89.88	4.35	20.7	60.12	60.00
0.007500	90.48	4.38	20.7	60.12	60.00
0.007600	91.08	4.41	20.7	60.12	L
0.007700	91.68	4.44	20.7	60.12	60.00
0.007800	92.28	4.47	20.7	60.12	
0.007900	92.87	4.50	20.1	60.12	
0.00800.c	93.45	4.52	20.1	i	li .
2.008100	94.03	4.55	20.		
0.008200	94.61	·	l l		1
0.008300	95.19	4.61	20.	60.12	60.00

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							<del></del>	
1	Channel D		Velocity	Flow		Vetted	Top Width	
ļ	Slope (ft/ft)	(cfs)	(ft/s)	Area (ft²)	Pe	rimeter (ft)	(ft)	
				<u>``</u>	,		60.00	
	0.008400	95.76	4.64	20. 20.		60.12 60.12	60.00	
	0.008500	96.33	4.66	20. 20.	1	60.12	60.00	
	0.008600	96.89	4.69		- 1	60.12	60.00	
	0.008700	97.45	4.72	20.		60.12	60.00	
4	0.008800	98.01	4.75	20. 20.	- 1	60.12	60.00	l
	0.008900	98.57	4.77		1	60.12	60.00	١
	0.009000	99.12	4.80	20.	ŀ	60.12	60.00	ļ
	0.009100	99.67	4.83	20. 20.	1	60.12	60.00	Ì
	0.009200	100.21	4.85	20.	•	60.12	60.00	١.
	0.009300	100.76	4.88	20	ı	60.12	60.00	ļ
	0.009400	101.30	4.90	20,	- 1	60.12	60.00	
	0.009500	101.84	4.93	i	- 1	60.12	60.00	ļ
	0.009600	102.37	4.96 4.98	1	- 1	60.12	60.00	1
	0.009700	102.90	4.90 5.01	20	1	60.12	60.00	١
	0.009800	103.43	5.03	Į.	Ł	60.12	60.00	1
	0.009900	103.96	5.06	1	- 1	60.12	60.00	1
	0.010000	104.48 105.00	5.08	1	- 1	60.12	60.00	
	0.010100		5.00	ł	Į	60.12	60.00	
	0.010200	105.52 106.04	5.13	I	- 1	60.12	60.00	
	0.010300	106.04	5.16	T .	· .	60.12	60.00	ŀ
	0.010400 0.010500	100.95	5.18	1	.7	60.12	60.00	Ι.
	0.010600	107.57	5.2	•	0.7	60.12	60.00	4
	0.010700	108.08	5.2	l	0.7	60.12	60.00	
	0.010800	108.58	5.2	I .	0.7	60.12	60.00	
٠	0.010900	108.38	5.2	1	0.7	60.12	60.00	Ţ
	3.0110900	109.58	5.3	· ·	7.7	60.12	60.00	
	0.011100	110.08	5.3	·	0.7	60.12	60.00	- 1
	0.011100	110.57	5.3	· i	5.7	60.12	60.00	- 1
	0.011300	111.07	5.3	- 1	0.7	60.12	60.00	- 1
	0.011400	111.56	5.4	ı	0.7	60.12	60.00	١٥
	0.011500	112.04	5.4	<sup>-</sup>	9.7	60.12	60.00	o [
	0.011600	112.53	1		0.7	60.12	60.00	0
	0.014700	113.01	5.4	- I	0.7	60.12	60.0	οĺ
	0.011800	113.50	۱		0.7	60.12	60.0	0
	0.011900	113.98			0.7	60.12		- 1
	0.012000	114.45	1	i	0.7	60.12	60.0	0
	0.012100	114.93		Į.	0.7	60.12	60.0	o
	0.012200		1		0.7	60.12	60.0	0
	0.012300	i			0.7	60.12	60.0	0
	0.012400	i	1		0.7	60.12	60.0	0
	0.012500	1	1		0.7	60.12	60.0	0
	0.012600	1		8 2	0.7	60.12	60.0	ю
	0.012700	1	t		0.7	60.12	60.0	ю:
	0.012800				0.7	60.12	60.0	0
	0.012900	1		75 2	0.7	60.12	60.0	0
	0.013000	l .			20.7	60.12	60.0	0
	0.013100	1	4		20.7	60.12	60.0	00
	0.013200	l l		31 2	20.7	60.12	60.0	00
	0.013300	1	5.1	33 2	20.7	60.12	1	
	0.013400			36 2	20.7	60.12		_
	0.013500	121.4	5.		20.7	60.12		
	0.013600	121.8	5 5.	90 2	20.7	60.12	2 60.0	00

Slope (tift)   C(fs)   C(fs)						
(ft/ft)         (ft)         (ft)         (ft)           3.013700         122.29         5.92         20.7         60.12         60.00           3.013800         122.74         5.94         20.7         60.12         60.00           3.014000         123.62         5.99         20.7         60.12         60.00           3.014100         124.50         6.03         20.7         60.12         60.00           3.014300         124.94         6.05         20.7         60.12         60.00           3.014500         125.81         6.09         20.7         60.12         60.00           3.014500         125.81         6.09         20.7         60.12         60.00           3.014500         125.81         6.09         20.7         60.12         60.00           3.014800         127.11         6.15         20.7         60.12         60.00           3.015000         127.96         6.20         20.7         60.12         60.00           3.015001         128.83         6.22         20.7         60.12         60.00           3.015400         129.24         6.26         20.7         60.12         60.00           3.015			Velocity	Flow	Wetted	Top
0.013700   122.29   5.92   20.7   60.12   60.00   0.013800   122.74   5.94   20.7   60.12   60.00   0.013900   123.18   5.96   20.7   60.12   60.00   0.014100   124.66   6.01   20.7   60.12   60.00   0.014100   124.50   6.03   20.7   60.12   60.00   0.014200   124.50   6.03   20.7   60.12   60.00   0.014400   125.38   6.07   20.7   60.12   60.00   0.014400   125.38   6.07   20.7   60.12   60.00   0.014400   125.81   6.09   20.7   60.12   60.00   0.014500   126.68   6.13   20.7   60.12   60.00   0.014700   126.68   6.13   20.7   60.12   60.00   0.014700   127.14   6.15   20.7   60.12   60.00   0.014800   127.14   6.15   20.7   60.12   60.00   0.015000   127.96   6.20   20.7   60.12   60.00   0.015000   127.96   6.20   20.7   60.12   60.00   0.015200   128.39   6.22   20.7   60.12   60.00   0.015200   129.66   6.28   20.7   60.12   60.00   0.015200   129.66   6.28   20.7   60.12   60.00   0.015500   130.08   6.30   20.7   60.12   60.00   0.015500   130.08   6.30   20.7   60.12   60.00   0.015600   130.50   6.32   20.7   60.12   60.00   0.015600   130.50   6.32   20.7   60.12   60.00   0.015600   131.33   6.36   20.7   60.12   60.00   0.015600   131.33   6.36   20.7   60.12   60.00   0.015600   132.16   6.40   20.7   60.12   60.00   0.015600   132.16   6.40   20.7   60.12   60.00   0.01600   132.16   6.40   20.7   60.12   60.00   0.01600   132.57   6.42   20.7   60.12   60.00   0.016000   132.98   6.44   20.7   60.12   60.00   0.016500   134.21   6.50   20.7   60.12   60.00   0.016600   134.61   6.52   20.7   60.12   60.00   0.016600   134.61   6.52   20.7   60.12   60.00   0.016600   134.61   6.52   20.7   60.12   60.00   0.016600   134.61   6.52   20.7   60.12   60.00   0.016600   134.61   6.52   20.7   60.12   60.00   0.016600   134.61   6.52   20.7   60.12   60.00   0.016600   134.61   6.52   20.7   60.12   60.00   0.016600   134.61   6.52   20.7   60.12   60.00   0.016600   134.61   6.52   20.7   60.12   60.00   0.017000   136.63   6.61   20.7   60.12   60.00   0.017000   136.63   6.65   20.7   60.12   60.0		(cts)	(IVS)			
3.013800   122.74   5.94   20.7   60.12   60.00     3.013800   123.18   5.96   20.7   60.12   60.00     3.014000   123.62   5.99   20.7   60.12   60.00     3.014200   124.50   6.03   20.7   60.12   60.00     3.014200   124.54   6.05   20.7   60.12   60.00     3.014300   124.94   6.05   20.7   60.12   60.00     3.014500   125.81   6.09   20.7   60.12   60.00     3.014500   125.81   6.09   20.7   60.12   60.00     3.014700   126.68   6.13   20.7   60.12   60.00     3.014700   127.11   6.15   20.7   60.12   60.00     3.014900   127.54   6.17   20.7   60.12   60.00     3.015000   127.96   6.20   20.7   60.12   60.00     3.015200   128.81   6.24   20.7   60.12   60.00     3.015300   129.24   6.26   20.7   60.12   60.00     3.015000   129.24   6.26   20.7   60.12   60.00     3.015600   130.50   6.32   20.7   60.12   60.00     3.015600   130.50   6.32   20.7   60.12   60.00     3.015900   131.75   6.38   20.7   60.12   60.00     3.015900   131.33   6.36   20.7   60.12   60.00     3.015900   131.33   6.36   20.7   60.12   60.00     3.016000   132.98   6.44   20.7   60.12   60.00     3.016500   133.89   6.48   20.7   60.12   60.00     3.016600   133.80   6.48   20.7   60.12   60.00     3.016500   133.80   6.48   20.7   60.12   60.00     3.016600   134.61   6.52   20.7   60.12   60.00     3.016600   135.42   6.56   20.7   60.12   60.00     3.016600   135.42   6.56   20.7   60.12   60.00     3.016700   135.83   6.48   20.7   60.12   60.00     3.016700   135.42   6.56   20.7   60.12   60.00     3.016700   135.42   6.56   20.7   60.12   60.00     3.016700   135.42   6.56   20.7   60.12   60.00     3.016700   135.42   6.56   20.7   60.12   60.00     3.016800   135.42   6.56   20.7   60.12   60.00     3.016800   135.42   6.56   20.7   60.12   60.00     3.017700   136.63   6.61   20.7   60.12   60.00     3.017800   135.42   6.56   20.7   60.12   60.00     3.017800   135.42   6.56   20.7   60.12   60.00     3.017800   135.42   6.66   20.7   60.12   60.00     3.017800   139.40   6.75   20.7   60.12   60.00     3.018800   142.4	(1011)					
3.013900   123.18   5.96   20.7   60.12   60.00     3.014000   124.06   6.01   20.7   60.12   60.00     3.014200   124.50   6.03   20.7   60.12   60.00     3.014300   124.94   6.05   20.7   60.12   60.00     3.014400   125.38   6.07   20.7   60.12   60.00     3.014400   125.38   6.09   20.7   60.12   60.00     3.014500   125.81   6.09   20.7   60.12   60.00     3.014600   126.25   6.11   20.7   60.12   60.00     3.014400   127.11   6.15   20.7   60.12   60.00     3.014900   127.54   6.17   20.7   60.12   60.00     3.015000   127.96   6.20   20.7   60.12   60.00     3.015000   128.39   6.22   20.7   60.12   60.00     3.015300   129.24   6.26   20.7   60.12   60.00     3.015500   130.08   6.30   20.7   60.12   60.00     3.015600   130.50   6.32   20.7   60.12   60.00     3.015600   130.50   6.32   20.7   60.12   60.00     3.015900   131.75   6.38   20.7   60.12   60.00     3.015900   132.16   6.40   20.7   60.12   60.00     3.016000   132.57   6.42   20.7   60.12   60.00     3.016000   132.57   6.42   20.7   60.12   60.00     3.016500   134.21   6.50   20.7   60.12   60.00     3.016500   134.21   6.50   20.7   60.12   60.00     3.016500   134.21   6.50   20.7   60.12   60.00     3.016600   134.21   6.50   20.7   60.12   60.00     3.016500   134.21   6.50   20.7   60.12   60.00     3.016500   134.21   6.50   20.7   60.12   60.00     3.016500   134.21   6.50   20.7   60.12   60.00     3.016500   134.21   6.50   20.7   60.12   60.00     3.016500   134.21   6.50   20.7   60.12   60.00     3.016500   134.61   6.52   20.7   60.12   60.00     3.016500   134.61   6.52   20.7   60.12   60.00     3.016500   134.61   6.52   20.7   60.12   60.00     3.017000   136.63   6.61   20.7   60.12   60.00     3.017000   136.63   6.61   20.7   60.12   60.00     3.017000   136.63   6.66   20.7   60.12   60.00     3.017000   136.63   6.67   20.7   60.12   60.00     3.017000   136.63   6.67   20.7   60.12   60.00     3.017000   136.63   6.67   20.7   60.12   60.00     3.01800   140.18   6.79   20.7   60.12   60.00     3.01800   140.85		i I	1			
0.014000	0.013800	122.74				ľ
0.014100	0.013900	123.18	5.96	20.7	1	1
D.014200   124.50   6.03   20.7   60.12   60.00	0.014000	123.62	5.99	20.7		
D.014300	0.014100	124.06	6.01	20.7	60.12	60.00
D.014400	0.014200	124.50	6.03	20.7	60.12	60.00
D.014500   125.81   6.09   20.7   60.12   60.00	0.014300	124.94	6.05	20.7	60.12	60.00
D.014600	0.014400	125.38	6.07	20.7	60.12	60.00
0.014700	0.014500	125.81	6.09	20.7	60.12	60.00
0.014700	0.014600	126.25	6.11	20.7	60.12	60.00
0.014800		126.68	6.13		60.12	60.00
0.014890         127.54         6.17         20.7         60.12         60.00           0.015000         127.96         6.20         20.7         60.12         60.00           0.015100         128.39         6.22         20.7         60.12         60.00           0.015200         128.81         6.24         20.7         60.12         60.00           0.015300         129.24         6.26         20.7         60.12         60.00           0.015400         129.66         6.28         20.7         60.12         60.00           0.015500         130.08         6.30         20.7         60.12         60.00           0.015600         130.91         6.34         20.7         60.12         60.00           0.015900         131.75         6.38         20.7         60.12         60.00           0.016000         132.16         6.40         20.7         60.12         60.00           0.016200         132.98         6.44         20.7         60.12         60.00           0.016300         133.80         6.48         20.7         60.12         60.00           0.016500         134.61         6.52         20.7         60.12 <t< td=""><td>1</td><td>1</td><td></td><td>20.7</td><td>60.12</td><td>60.00</td></t<>	1	1		20.7	60.12	60.00
0.015000         127.96         6.20         20.7         60.12         60.00           0.015100         128.39         6.22         20.7         60.12         60.00           0.015200         128.81         6.24         20.7         60.12         60.00           0.015300         129.24         6.26         20.7         60.12         60.00           0.015400         129.66         6.28         20.7         60.12         60.00           0.015500         130.08         6.30         20.7         60.12         60.00           0.015600         130.50         6.32         20.7         60.12         60.00           0.015700         130.91         6.34         20.7         60.12         60.00           0.015800         131.33         6.36         20.7         60.12         60.00           0.015900         131.75         6.38         20.7         60.12         60.00           0.016100         132.16         6.40         20.7         60.12         60.00           0.016200         132.98         6.44         20.7         60.12         60.00           0.016300         134.61         6.52         20.7         60.12 <t< td=""><td>1</td><td></td><td>1</td><td></td><td>60,12</td><td>60.00</td></t<>	1		1		60,12	60.00
0.015100         128.39         6.22         20.7         60.12         60.00           0.015200         128.81         6.24         20.7         60.12         60.00           0.015300         129.24         6.26         20.7         60.12         60.00           0.015400         129.66         6.28         20.7         60.12         60.00           0.015500         130.08         6.30         20.7         60.12         60.00           0.015600         130.50         6.32         20.7         60.12         60.00           0.015700         130.91         6.34         20.7         60.12         60.00           0.015800         131.33         6.36         20.7         60.12         60.00           0.015900         131.75         6.38         20.7         60.12         60.00           0.016000         132.16         6.40         20.7         60.12         60.00           0.016100         132.57         6.42         20.7         60.12         60.00           0.016200         133.39         6.44         20.7         60.12         60.00           0.016400         133.80         6.48         20.7         60.12 <t< td=""><td>1</td><td></td><td></td><td></td><td>1 1</td><td>60.00</td></t<>	1				1 1	60.00
0.015200         128.81         6.24         20.7         60.12         60.00           0.015300         129.24         6.26         20.7         60.12         60.00           0.015400         129.66         6.28         20.7         60.12         60.00           0.015500         130.08         6.30         20.7         60.12         60.00           0.015600         130.50         6.32         20.7         60.12         60.00           0.015700         130.91         6.34         20.7         60.12         60.00           0.015800         131.33         6.36         20.7         60.12         60.00           0.015900         131.75         6.38         20.7         60.12         60.00           0.016000         132.16         6.40         20.7         60.12         60.00           0.016100         132.57         6.42         20.7         60.12         60.00           0.016200         132.98         6.44         20.7         60.12         60.00           0.016300         133.80         6.48         20.7         60.12         60.00           0.016600         134.61         6.52         20.7         60.12 <t< td=""><td>1</td><td> </td><td>l l</td><td></td><td></td><td>l l</td></t<>	1		l l			l l
0.015300         129.24         6.26         20.7         60.12         60.00           0.015400         129.66         6.28         20.7         60.12         60.00           0.015500         130.08         6.30         20.7         60.12         60.00           0.015700         130.91         6.34         20.7         60.12         60.00           0.015800         131.33         6.36         20.7         60.12         60.00           0.015900         131.75         6.38         20.7         60.12         60.00           0.016000         132.16         6.40         20.7         60.12         60.00           0.016100         132.57         6.42         20.7         60.12         60.00           0.016200         132.98         6.44         20.7         60.12         60.00           0.016300         133.80         6.48         20.7         60.12         60.00           0.016500         134.21         6.50         20.7         60.12         60.00           0.016600         134.61         6.52         20.7         60.12         60.00           0.016800         135.83         6.58         20.7         60.12 <t< td=""><td></td><td></td><td>1</td><td></td><td>1 1</td><td></td></t<>			1		1 1	
3.015400         129.66         6.28         20.7         60.12         60.00           3.015500         130.08         6.30         20.7         60.12         60.00           3.015600         130.50         6.32         20.7         60.12         60.00           3.015700         130.91         6.34         20.7         60.12         60.00           3.015900         131.75         6.38         20.7         60.12         60.00           3.016000         132.16         6.40         20.7         60.12         60.00           3.016100         132.57         6.42         20.7         60.12         60.00           3.016200         132.98         6.44         20.7         60.12         60.00           3.016300         133.39         6.46         20.7         60.12         60.00           3.016600         134.21         6.50         20.7         60.12         60.00           3.016600         134.61         6.52         20.7         60.12         60.00           3.016800         135.42         6.56         20.7         60.12         60.00           3.017000         136.63         6.51         20.7         60.12 <t< td=""><td>1</td><td></td><td>1 1</td><td></td><td></td><td>1</td></t<>	1		1 1			1
3.015500         130.08         6.30         20.7         60.12         60.00           3.015600         130.50         6.32         20.7         60.12         60.00           3.015700         130.91         6.34         20.7         60.12         60.00           3.015800         131.33         6.36         20.7         60.12         60.00           3.015900         131.75         6.38         20.7         60.12         60.00           3.016000         132.16         6.40         20.7         60.12         60.00           3.016100         132.57         6.42         20.7         60.12         60.00           3.016200         132.98         6.44         20.7         60.12         60.00           3.016300         133.39         6.46         20.7         60.12         60.00           3.016600         134.21         6.50         20.7         60.12         60.00           3.016600         134.61         6.52         20.7         60.12         60.00           3.016800         135.42         6.56         20.7         60.12         60.00           3.016800         135.83         6.58         20.7         60.12 <t< td=""><td>ļ</td><td></td><td></td><td></td><td></td><td>i i</td></t<>	ļ					i i
3.015600         130.50         6.32         20.7         60.12         60.00           3.015700         130.91         6.34         20.7         60.12         60.00           3.015800         131.33         6.36         20.7         60.12         60.00           3.015900         131.75         6.38         20.7         60.12         60.00           3.016000         132.16         6.40         20.7         60.12         60.00           3.016100         132.57         6.42         20.7         60.12         60.00           3.016200         132.98         6.44         20.7         60.12         60.00           3.016300         133.39         6.46         20.7         60.12         60.00           3.016400         133.80         6.48         20.7         60.12         60.00           3.016500         134.61         6.52         20.7         60.12         60.00           3.016600         134.61         6.52         20.7         60.12         60.00           3.016800         135.83         6.58         20.7         60.12         60.00           3.017000         136.23         6.69         20.7         60.12 <t< td=""><td>1</td><td></td><td>1.</td><td></td><td></td><td></td></t<>	1		1.			
3.015700         130.91         6.34         20.7         60.12         60.00           3.015800         131.33         6.36         20.7         60.12         60.00           3.015900         131.75         6.38         20.7         60.12         60.00           3.016000         132.16         6.40         20.7         60.12         60.00           3.016100         132.98         6.44         20.7         60.12         60.00           3.016200         132.98         6.44         20.7         60.12         60.00           3.016300         133.39         6.46         20.7         60.12         60.00           3.016400         133.80         6.48         20.7         60.12         60.00           3.016500         134.21         6.50         20.7         60.12         60.00           3.016600         135.42         6.52         20.7         60.12         60.00           3.016900         135.83         6.58         20.7         60.12         60.00           3.017100         136.63         6.61         20.7         60.12         60.00           3.017200         137.82         6.67         20.7         60.12 <t< td=""><td>1</td><td></td><td>1</td><td></td><td>1</td><td></td></t<>	1		1		1	
3.015800         131.33         6.36         20.7         60.12         60.00           3.015900         131.75         6.38         20.7         60.12         60.00           3.016000         132.16         6.40         20.7         60.12         60.00           3.016100         132.57         6.42         20.7         60.12         60.00           3.016200         132.98         6.44         20.7         60.12         60.00           3.016300         133.39         6.46         20.7         60.12         60.00           3.016400         133.80         6.48         20.7         60.12         60.00           3.016500         134.61         6.52         20.7         60.12         60.00           3.016600         135.42         6.56         20.7         60.12         60.00           3.016900         135.83         6.58         20.7         60.12         60.00           3.017000         136.63         6.61         20.7         60.12         60.00           3.017300         137.42         6.65         20.7         60.12         60.00           3.017500         138.61         6.71         20.7         60.12 <t< td=""><td>1</td><td></td><td>1</td><td></td><td></td><td></td></t<>	1		1			
0.015900         131.75         6.38         20.7         60.12         60.00           0.016000         132.16         6.40         20.7         60.12         60.00           0.016100         132.57         6.42         20.7         60.12         60.00           0.016200         132.98         6.44         20.7         60.12         60.00           0.016300         133.39         6.46         20.7         60.12         60.00           0.016400         133.80         6.48         20.7         60.12         60.00           0.016500         134.21         6.50         20.7         60.12         60.00           0.016600         134.61         6.52         20.7         60.12         60.00           0.016700         135.02         6.54         20.7         60.12         60.00           0.016900         135.83         6.58         20.7         60.12         60.00           0.017000         136.63         6.61         20.7         60.12         60.00           0.017200         137.03         6.63         20.7         60.12         60.00           0.017400         137.82         6.67         20.7         60.12 <t< td=""><td></td><td>l l</td><td></td><td></td><td></td><td></td></t<>		l l				
3.016000         132.16         6.40         20.7         60.12         60.00           3.016100         132.57         6.42         20.7         60.12         60.00           3.016200         132.98         6.44         20.7         60.12         60.00           3.016300         133.39         6.46         20.7         60.12         60.00           3.016400         133.80         6.48         20.7         60.12         60.00           3.016500         134.21         6.50         20.7         60.12         60.00           3.016600         134.61         6.52         20.7         60.12         60.00           3.016700         135.02         6.54         20.7         60.12         60.00           3.016800         135.42         6.56         20.7         60.12         60.00           3.017000         136.23         6.60         20.7         60.12         60.00           3.017200         137.03         6.63         20.7         60.12         60.00           3.017300         137.42         6.65         20.7         60.12         60.00           3.017600         138.61         6.71         20.7         60.12 <t< td=""><td></td><td></td><td>1 1</td><td></td><td>i</td><td></td></t<>			1 1		i	
3.016100         132.57         6.42         20.7         60.12         60.00           3.016200         132.98         6.44         20.7         60.12         60.00           3.016300         133.39         6.46         20.7         60.12         60.00           3.016400         133.80         6.48         20.7         60.12         60.00           3.016500         134.21         6.50         20.7         60.12         60.00           3.016600         134.61         6.52         20.7         60.12         60.00           3.016900         135.42         6.56         20.7         60.12         60.00           3.017000         136.63         6.61         20.7         60.12         60.00           3.017200         137.03         6.63         20.7         60.12         60.00           3.017300         137.42         6.65         20.7         60.12         60.00           3.017400         137.82         6.67         20.7         60.12         60.00           3.017600         138.61         6.71         20.7         60.12         60.00           3.017600         139.40         6.75         20.7         60.12 <t< td=""><td></td><td></td><td>1 . 1</td><td></td><td></td><td>l i</td></t<>			1 . 1			l i
3.016200         132.98         6.44         20.7         60.12         60.00           3.016300         133.39         6.46         20.7         60.12         60.00           3.016400         133.80         6.48         20.7         60.12         60.00           3.016500         134.21         6.50         20.7         60.12         60.00           3.016600         134.61         6.52         20.7         60.12         60.00           3.016700         135.02         6.54         20.7         60.12         60.00           3.016900         135.83         6.58         20.7         60.12         60.00           3.017000         136.23         6.60         20.7         60.12         60.00           3.017200         137.03         6.63         20.7         60.12         60.00           3.017300         137.42         6.65         20.7         60.12         60.00           3.017500         138.22         6.69         20.7         60.12         60.00           3.017600         138.61         6.71         20.7         60.12         60.00           3.017800         139.79         6.77         20.7         60.12 <t< td=""><td>i</td><td></td><td><b>1</b> 1</td><td></td><td>1</td><td>l I</td></t<>	i		<b>1</b> 1		1	l I
0.016300         133.39         6.46         20.7         60.12         60.00           0.016400         133.80         6.48         20.7         60.12         60.00           0.016500         134.21         6.50         20.7         60.12         60.00           0.016600         134.61         6.52         20.7         60.12         60.00           0.016700         135.02         6.54         20.7         60.12         60.00           0.016800         135.42         6.56         20.7         60.12         60.00           0.016900         135.83         6.58         20.7         60.12         60.00           0.017000         136.63         6.61         20.7         60.12         60.00           0.017200         137.03         6.63         20.7         60.12         60.00           0.017300         137.42         6.65         20.7         60.12         60.00           0.017400         137.82         6.67         20.7         60.12         60.00           0.017500         138.61         6.71         20.7         60.12         60.00           0.017900         139.40         6.75         20.7         60.12 <t< td=""><td>0.016100</td><td>132.57</td><td>1</td><td></td><td>1.</td><td>1 1</td></t<>	0.016100	132.57	1		1.	1 1
0.016400         133.80         6.48         20.7         60.12         60.00           0.016500         134.21         6.50         20.7         60.12         60.00           0.016600         134.61         6.52         20.7         60.12         60.00           0.016700         135.02         6.54         20.7         60.12         60.00           0.016800         135.42         6.56         20.7         60.12         60.00           0.017000         136.23         6.60         20.7         60.12         60.00           0.017100         136.63         6.61         20.7         60.12         60.00           0.017200         137.03         6.63         20.7         60.12         60.00           0.017300         137.42         6.65         20.7         60.12         60.00           0.017400         137.82         6.67         20.7         60.12         60.00           0.017500         138.61         6.71         20.7         60.12         60.00           0.017800         139.40         6.75         20.7         60.12         60.00           0.018000         140.18         6.79         20.7         60.12 <t< td=""><td>0.016200</td><td>132.98</td><td></td><td>20.7</td><td>60.12</td><td>i I</td></t<>	0.016200	132.98		20.7	60.12	i I
0.016500         134.21         6.50         20.7         60.12         60.00           0.016600         134.61         6.52         20.7         60.12         60.00           0.016700         135.02         6.54         20.7         60.12         60.00           0.016800         135.42         6.56         20.7         60.12         60.00           0.016900         135.83         6.58         20.7         60.12         60.00           0.017000         136.23         6.60         20.7         60.12         60.00           0.017100         136.63         6.61         20.7         60.12         60.00           0.017200         137.03         6.63         20.7         60.12         60.00           0.017300         137.42         6.65         20.7         60.12         60.00           0.017400         137.82         6.67         20.7         60.12         60.00           0.017500         138.61         6.71         20.7         60.12         60.00           0.017800         139.40         6.75         20.7         60.12         60.00           0.01800         140.18         6.79         20.7         60.12 <td< td=""><td>0.016300</td><td>133.39</td><td>6.46</td><td>20.7</td><td>60.12</td><td>60.00</td></td<>	0.016300	133.39	6.46	20.7	60.12	60.00
0.016600         134.61         6.52         20.7         60.12         60.00           0.016700         135.02         6.54         20.7         60.12         60.00           0.016800         135.42         6.56         20.7         60.12         60.00           0.016900         135.83         6.58         20.7         60.12         60.00           0.017000         136.23         6.60         20.7         60.12         60.00           0.017100         136.63         6.61         20.7         60.12         60.00           0.017200         137.03         6.63         20.7         60.12         60.00           0.017300         137.42         6.65         20.7         60.12         60.00           0.017400         137.82         6.67         20.7         60.12         60.00           0.017500         138.61         6.71         20.7         60.12         60.00           0.017700         139.00         6.73         20.7         60.12         60.00           0.017800         139.40         6.75         20.7         60.12         60.00           0.018000         140.18         6.79         20.7         60.12 <t< td=""><td>0.016400</td><td>133.80</td><td>6.48</td><td>20.</td><td>7 60.12</td><td>60.00</td></t<>	0.016400	133.80	6.48	20.	7 60.12	60.00
0.016700         135.02         6.54         20.7         60.12         60.00           0.016800         135.42         6.56         20.7         60.12         60.00           0.016900         135.83         6.58         20.7         60.12         60.00           0.017000         136.23         6.60         20.7         60.12         60.00           0.017100         136.63         6.61         20.7         60.12         60.00           0.017200         137.03         6.63         20.7         60.12         60.00           0.017300         137.42         6.65         20.7         60.12         60.00           0.017400         137.82         6.67         20.7         60.12         60.00           0.017500         138.61         6.71         20.7         60.12         60.00           0.017600         139.40         6.73         20.7         60.12         60.00           0.017900         139.79         6.77         20.7         60.12         60.00           0.018000         140.18         6.79         20.7         60.12         60.00           0.018200         140.95         6.82         20.7         60.12 <t< td=""><td>0.016500</td><td>134.21</td><td>6.50</td><td>20.7</td><td>60.12</td><td>60.00</td></t<>	0.016500	134.21	6.50	20.7	60.12	60.00
0.016800         135.42         6.56         20.7         60.12         60.00           0.016900         135.83         6.58         20.7         60.12         60.00           0.017000         136.23         6.60         20.7         60.12         60.00           0.017100         136.63         6.61         20.7         60.12         60.00           0.017200         137.03         6.63         20.7         60.12         60.00           0.017300         137.42         6.65         20.7         60.12         60.00           0.017400         137.82         6.67         20.7         60.12         60.00           0.017500         138.61         6.71         20.7         60.12         60.00           0.017600         138.61         6.71         20.7         60.12         60.00           0.017800         139.40         6.75         20.7         60.12         60.00           0.017900         139.79         6.77         20.7         60.12         60.00           0.018000         140.18         6.79         20.7         60.12         60.00           0.018200         140.95         6.82         20.7         60.12 <t< td=""><td>0.016600</td><td>134.61</td><td>6.52</td><td>20.7</td><td>7 60.12</td><td>1</td></t<>	0.016600	134.61	6.52	20.7	7 60.12	1
3.016900         135.83         6.58         20.7         60.12         60.00           3.017000         136.23         6.60         20.7         60.12         60.00           3.017100         136.63         6.61         20.7         60.12         60.00           3.017200         137.03         6.63         20.7         60.12         60.00           3.017300         137.42         6.65         20.7         60.12         60.00           3.017400         137.82         6.67         20.7         60.12         60.00           3.017500         138.61         6.71         20.7         60.12         60.00           3.017600         138.61         6.71         20.7         60.12         60.00           3.017700         139.00         6.73         20.7         60.12         60.00           3.017800         139.40         6.75         20.7         60.12         60.00           3.01800         140.18         6.79         20.7         60.12         60.00           3.018100         140.57         6.81         20.7         60.12         60.00           3.018200         141.34         6.84         20.7         60.12 <td< td=""><td>0.016700</td><td>135.02</td><td>6.54</td><td>20.</td><td>60.12</td><td>60.00</td></td<>	0.016700	135.02	6.54	20.	60.12	60.00
0.017000         136.23         6.60         20.7         60.12         60.00           0.017100         136.63         6.61         20.7         60.12         60.00           0.017200         137.03         6.63         20.7         60.12         60.00           0.017300         137.42         6.65         20.7         60.12         60.00           0.017400         137.82         6.67         20.7         60.12         60.00           0.017500         138.61         6.71         20.7         60.12         60.00           0.017600         139.00         6.73         20.7         60.12         60.00           0.017900         139.40         6.75         20.7         60.12         60.00           0.017900         139.79         6.77         20.7         60.12         60.00           0.018000         140.18         6.79         20.7         60.12         60.00           0.018200         140.95         6.82         20.7         60.12         60.00           0.018400         141.34         6.84         20.7         60.12         60.00           0.018500         142.11         6.88         20.7         60.12 <t< td=""><td>0.01680</td><td>135.42</td><td>6.56</td><td>20.</td><td>7 60.12</td><td>60.00</td></t<>	0.01680	135.42	6.56	20.	7 60.12	60.00
0.017100         136.63         6.61         20.7         60.12         60.00           0.017200         137.03         6.63         20.7         60.12         60.00           0.017300         137.42         6.65         20.7         60.12         60.00           0.017400         137.82         6.67         20.7         60.12         60.00           0.017500         138.22         6.69         20.7         60.12         60.00           0.017600         138.61         6.71         20.7         60.12         60.00           0.017700         139.00         6.73         20.7         60.12         60.00           0.017800         139.40         6.75         20.7         60.12         60.00           0.017900         139.79         6.77         20.7         60.12         60.00           0.018000         140.18         6.79         20.7         60.12         60.00           0.018200         140.95         6.82         20.7         60.12         60.00           0.018400         141.34         6.84         20.7         60.12         60.00           0.018500         142.11         6.88         20.7         60.12 <t< td=""><td>1</td><td></td><td>6.58</td><td>20.</td><td>60.12</td><td>60.00</td></t<>	1		6.58	20.	60.12	60.00
0.017100         136.63         6.61         20.7         60.12         60.00           0.017200         137.03         6.63         20.7         60.12         60.00           0.017300         137.42         6.65         20.7         60.12         60.00           0.017400         137.82         6.67         20.7         60.12         60.00           0.017500         138.22         6.69         20.7         60.12         60.00           0.017600         138.61         6.71         20.7         60.12         60.00           0.017700         139.00         6.73         20.7         60.12         60.00           0.017800         139.40         6.75         20.7         60.12         60.00           0.017900         139.79         6.77         20.7         60.12         60.00           0.018000         140.18         6.79         20.7         60.12         60.00           0.018200         140.95         6.82         20.7         60.12         60.00           0.018400         141.34         6.84         20.7         60.12         60.00           0.018500         142.11         6.88         20.7         60.12 <t< td=""><td>0.01700</td><td>136.23</td><td>6.60</td><td>20.</td><td>7 60.12</td><td>60.00</td></t<>	0.01700	136.23	6.60	20.	7 60.12	60.00
0.017200         137.03         6.63         20.7         60.12         60.00           0.017300         137.42         6.65         20.7         60.12         60.00           0.017400         137.82         6.67         20.7         60.12         60.00           0.017500         138.22         6.69         20.7         60.12         60.00           0.017600         138.61         6.71         20.7         60.12         60.00           0.017700         139.00         6.73         20.7         60.12         60.00           0.017800         139.40         6.75         20.7         60.12         60.00           0.017900         139.79         6.77         20.7         60.12         60.00           0.018000         140.18         6.79         20.7         60.12         60.00           0.018200         140.95         6.81         20.7         60.12         60.00           0.018300         141.34         6.84         20.7         60.12         60.00           0.018400         141.73         6.86         20.7         60.12         60.00           0.018500         142.11         6.88         20.7         60.12 <t< td=""><td></td><td></td><td>ممما</td><td>20.</td><td>7 60.12</td><td>60.00</td></t<>			ممما	20.	7 60.12	60.00
0.017300         137.42         6.65         20.7         60.12         60.00           0.017400         137.82         6.67         20.7         60.12         60.00           0.017500         138.22         6.69         20.7         60.12         60.00           0.017600         138.61         6.71         20.7         60.12         60.00           0.017700         139.00         6.73         20.7         60.12         60.00           0.017800         139.40         6.75         20.7         60.12         60.00           0.017900         139.79         6.77         20.7         60.12         60.00           0.018000         140.18         6.79         20.7         60.12         60.00           0.018100         140.57         6.81         20.7         60.12         60.00           0.018200         140.95         6.82         20.7         60.12         60.00           0.018300         141.34         6.84         20.7         60.12         60.00           0.018400         141.73         6.86         20.7         60.12         60.00           0.018500         142.11         6.88         20.7         60.12 <t< td=""><td></td><td>L</td><td></td><td>1</td><td>1</td><td>1</td></t<>		L		1	1	1
0.017400         137.82         6.67         20.7         60.12         60.00           0.017500         138.22         6.69         20.7         60.12         60.00           0.017600         138.61         6.71         20.7         60.12         60.00           0.017700         139.00         6.73         20.7         60.12         60.00           0.017800         139.40         6.75         20.7         60.12         60.00           0.017900         139.79         6.77         20.7         60.12         60.00           0.018000         140.18         6.79         20.7         60.12         60.00           0.018100         140.57         6.81         20.7         60.12         60.00           0.018200         140.95         6.82         20.7         60.12         60.00           0.018300         141.34         6.84         20.7         60.12         60.00           0.018400         141.73         6.86         20.7         60.12         60.00           0.018500         142.49         6.90         20.7         60.12         60.00           0.018700         142.88         6.92         20.7         60.12 <t< td=""><td></td><td></td><td>1</td><td></td><td>1</td><td>i</td></t<>			1		1	i
0.017500         138.22         6.69         20.7         60.12         60.00           0.017600         138.61         6.71         20.7         60.12         60.00           0.017700         139.00         6.73         20.7         60.12         60.00           0.017800         139.40         6.75         20.7         60.12         60.00           0.017900         139.79         6.77         20.7         60.12         60.00           0.018000         140.18         6.79         20.7         60.12         60.00           0.018100         140.57         6.81         20.7         60.12         60.00           0.018200         140.95         6.82         20.7         60.12         60.00           0.018300         141.34         6.84         20.7         60.12         60.00           0.018400         141.73         6.86         20.7         60.12         60.00           0.018500         142.11         6.88         20.7         60.12         60.00           0.018600         142.88         6.92         20.7         60.12         60.00           0.018800         143.26         6.94         20.7         60.12 <t< td=""><td></td><td></td><td>1</td><td></td><td>1</td><td>i</td></t<>			1		1	i
0.017600         138.61         6.71         20.7         60.12         60.00           0.017700         139.00         6.73         20.7         60.12         60.00           0.017800         139.40         6.75         20.7         60.12         60.00           0.017900         139.79         6.77         20.7         60.12         60.00           0.018000         140.18         6.79         20.7         60.12         60.00           0.018100         140.57         6.81         20.7         60.12         60.00           0.018200         140.95         6.82         20.7         60.12         60.00           0.018300         141.34         6.84         20.7         60.12         60.00           0.018400         141.73         6.86         20.7         60.12         60.00           0.018500         142.11         6.88         20.7         60.12         60.00           0.018600         142.49         6.90         20.7         60.12         60.00           0.018700         142.88         6.92         20.7         60.12         60.00           0.018800         143.26         6.94         20.7         60.12 <t< td=""><td>E .</td><td></td><td>1</td><td>ŀ</td><td>1</td><td></td></t<>	E .		1	ŀ	1	
0.017700         139.00         6.73         20.7         60.12         60.00           0.017800         139.40         6.75         20.7         60.12         60.00           0.017900         139.79         6.77         20.7         60.12         60.00           0.018000         140.18         6.79         20.7         60.12         60.00           0.018100         140.57         6.81         20.7         60.12         60.00           0.018200         140.95         6.82         20.7         60.12         60.00           0.018300         141.34         6.84         20.7         60.12         60.00           0.018400         141.73         6.86         20.7         60.12         60.00           0.018500         142.11         6.88         20.7         60.12         60.00           0.018600         142.88         6.92         20.7         60.12         60.00           0.018800         143.26         6.94         20.7         60.12         60.00		1	1	1		1
0.017800     139.40     6.75     20.7     60.12     60.00       0.017900     139.79     6.77     20.7     60.12     60.00       0.018000     140.18     6.79     20.7     60.12     60.00       0.018100     140.57     6.81     20.7     60.12     60.00       0.018200     140.95     6.82     20.7     60.12     60.00       0.018300     141.34     6.84     20.7     60.12     60.00       0.018400     141.73     6.86     20.7     60.12     60.00       0.018500     142.11     6.88     20.7     60.12     60.00       0.018600     142.49     6.90     20.7     60.12     60.00       0.018700     142.88     6.92     20.7     60.12     60.00       0.018800     143.26     6.94     20.7     60.12     60.00			1	1		1
0.017900     139.79     6.77     20.7     60.12     60.00       0.018000     140.18     6.79     20.7     60.12     60.00       0.018100     140.57     6.81     20.7     60.12     60.00       0.018200     140.95     6.82     20.7     60.12     60.00       0.018300     141.34     6.84     20.7     60.12     60.00       0.018400     141.73     6.86     20.7     60.12     60.00       0.018500     142.11     6.88     20.7     60.12     60.00       0.018600     142.49     6.90     20.7     60.12     60.00       0.018700     142.88     6.92     20.7     60.12     60.00       0.018800     143.26     6.94     20.7     60.12     60.00		1	1	ŀ		į.
0.018000         140.18         6.79         20.7         60.12         60.00           0.018100         140.57         6.81         20.7         60.12         60.00           0.018200         140.95         6.82         20.7         60.12         60.00           0.018300         141.34         6.84         20.7         60.12         60.00           0.018400         141.73         6.86         20.7         60.12         60.00           0.018500         142.11         6.88         20.7         60.12         60.00           0.018600         142.49         6.90         20.7         60.12         60.00           0.018700         142.88         6.92         20.7         60.12         60.00           0.018800         143.26         6.94         20.7         60.12         60.00		1	i	i	!	
0.018100     140.57     6.81     20.7     60.12     60.00       0.018200     140.95     6.82     20.7     60.12     60.00       0.018300     141.34     6.84     20.7     60.12     60.00       0.018400     141.73     6.86     20.7     60.12     60.00       0.018500     142.11     6.88     20.7     60.12     60.00       0.018600     142.49     6.90     20.7     60.12     60.00       0.018700     142.88     6.92     20.7     60.12     60.00       0.018800     143.26     6.94     20.7     60.12     60.00				1	i	1
0.018200     140.95     6.82     20.7     60.12     60.00       0.018300     141.34     6.84     20.7     60.12     60.00       0.018400     141.73     6.86     20.7     60.12     60.00       0.018500     142.11     6.88     20.7     60.12     60.00       0.018600     142.49     6.90     20.7     60.12     60.00       0.018700     142.88     6.92     20.7     60.12     60.00       0.018800     143.26     6.94     20.7     60.12     60.00	l l		1	1		t .
0.018300     141.34     6.84     20.7     60.12     60.00       0.018400     141.73     6.86     20.7     60.12     60.00       0.018500     142.11     6.88     20.7     60.12     60.00       0.018600     142.49     6.90     20.7     60.12     60.00       0.018700     142.88     6.92     20.7     60.12     60.00       0.018800     143.26     6.94     20.7     60.12     60.00				1 .	ı	1
0.018400     141.73     6.86     20.7     60.12     60.00       0.018500     142.11     6.88     20.7     60.12     60.00       0.018600     142.49     6.90     20.7     60.12     60.00       0.018700     142.88     6.92     20.7     60.12     60.00       0.018800     143.26     6.94     20.7     60.12     60.00		1		!		1
0.018500     142.11     6.88     20.7     60.12     60.00       0.018600     142.49     6.90     20.7     60.12     60.00       0.018700     142.88     6.92     20.7     60.12     60.00       0.018800     143.26     6.94     20.7     60.12     60.00	•		<b>}</b>		1	1
0.018600     142.49     6.90     20.7     60.12     60.00       0.018700     142.88     6.92     20.7     60.12     60.00       0.018800     143.26     6.94     20.7     60.12     60.00		•		1		1
0.018700         142.88         6.92         20.7         60.12         60.00           0.018800         143.26         6.94         20.7         60.12         60.00			1	1	ł.	1
0.018800 143.26 6.94 20.7 60.12 60.00	0.01860			1	1	1
0.01000	0.01870	0 142.8			_	
- In a company to a	0.01880	0 143.2		1	1	1
0.018900 143.64 6.95 20.7 60.12 60.00	0.01890	0 143.6	4 6.95	20	7 60.12	60.00

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and the second second					
Channel Slope (ft/ft)	Discharge (cfs)	Velocity (ft/s)	Flow Area (ft²)	Wetted Perimeter (ft)	Top Width (ft)
0.019000	144.02	6.97	20.7	60.12	60.00
0.019100	144.40	6.99	20.7	60.12	60.00
0.019200	144.77	7.01	20.7	60.12	60.00
0.019300	145.15	7.03	20.7	60.12	60.00
0.019400	145.53	7.05	20.7	60.12	60.00
0.019500	145.90	7.06	20.7	60.12	60.00
0.019600	146.27	7.08	20.7	60.12	60.00
0.019700	146.65	7.10	20.7	60.12	60.00
0.019800	147.02	7.12	20.7	60.12	1
0.019900	147.39	7.14	20.7	60.12	60.00
0.020000	1	7.15	20.7	60.12	60.00

Project Description	
Worksheet	Channel J-B (rev 20060521)
Flow Element	Trapezoidal Channel
Method	Manning's Formula
Solve For	Channel Depth
Input Data	
Mannings Coefficient	0.025
Channel Stope	0.010000 ft/ft
Left Side Stope	3.00 H:V
Right Side Slope	3.00 H:V
Bottom Width	25.00 ft
Discharge	778.00 cfs
Results	
Depth	2.52 ft
Flow Area	82.2 ft²
Wetted Perimeter	40.97 ft
Top Width	40.15 ft
Critical Depth	2.77 ft
Critical Slope	0.007188 ft/ft
Velocity	9.46 ft/s
Velocity Head	1.39 ft
Specific Energy	3.92 · ft
Froude Number	1.17
Flow Type	Supercritical

Worksheet	Channel J-A (20060521)
Flow Element	Trapezoidal Channel
Method	Manning's Formula
Solve For	Channel Depth
Input Data	<u>.</u>
Mannings Coefficient	0.025
Channel Slope	0.010000 ft/ft
Left Side Slope	4.00 H:V
Right Side Slope	4.00 H;V
Bottom Width	4.00 ft
Discharge	271.00 cfs
Results	
Depth	2.53 ft
Flow Area	35.8 ft²
Wetted Perimeter	24.88 ft
Top Width	24.26 ft
Critical Depth	2.65 ft
Critical Slope	0.008172 ft/ft
Velocity	7.57 ft/s
Velocity Head	0.89 ft
Specific Energy	3.42 ft
Froude Number	1.10
Flow Type	Supercritical

#### Worksheet **Worksheet for Triangular Channel**

Project Description	
Worksheet	Channel OS_3 (rev20060521)
Flow Element	Triangular Channel
Method	Manning's Formula
Solve For	Channel Depth
Input Data	
Mannings Coefficient	0.025
Channel Slope	0.010000 ft/ft
Left Side Slope	4.00 H:V
Right Side Slope	4.00 H:V
Discharge	149.00 cfs
Results	
Depth	2.38 ft
Flow Area	22.7 ft <sup>2</sup>
Wetted Perimeter	19.67 ft
Top Width	19.08 ft
Critical Depth	2.44 ft
Critical Slope	0.008872 ft/ft
•	
Velocity	6.55 ft/s
•	6.55 ft/s 0.67 ft
Velocity	*****
Velocity Velocity Head	0.67 ft

Project Description		
Worksheet	Channel OS-8 (2)	0060521)
Flow Element	Trapezoidal Char	nnel
Method	Manning's Formu	la
Solve For	Channel Depth	
Input Data		
Mannings Coefficient	0.025	
Channel Slope	0.010000 ft/ft	
Left Side Slope	4.00 H:V	
Right Side Slope	4.00 H:V	
Bottom Width	5.00 ft	
Discharge	409.00 cfs	
	,	_
Results		
Depth	2.92 ft	
Flow Area	48.8 ft²	
Wetted Perimeter	29.10 ft	
Top Width	28.38 ft	
Critical Depth	3.09 ft	
Critical Slope	0.007734 ft/ft	
Velocity	8.39 ft/s	
Velocity Head	1.09 ft	
Specific Energy	4.02 ft	
Froude Number	1.13	
Flow Type	Supercritical	

Project Description	
Worksheet	Channel OS-6 (20060521)
Flow Element	Trapezoidal Channel
Method	Manning's Formula
Solve For	Channel Depth
Input Data	
Mannings Coefficient	0.025
Channel Slope	0.010000 ft/ft
Left Side Slope	4.00 H:V
Right Side Slope	4.00 H:V
Bottom Width	4.00 ft
Discharge	328.00 cfs
Results	
Depth	2.75 ft
Flow Area	41.3 ft <sup>2</sup>
Wetted Perimeter	26.68 ft
Top Width	26.00 ft
Critical Depth	2.89 ft
Critical Slope	0.007969 ft/ft
Velocity	7.95 ft/s
Velocity Head	0.98 ft
Specific Energy	3.73 ft
Froude Number	1.11
Flow Type	Supercritical

Project Description	
Worksheet	Channel J-D (20060521)
Flow Element	Trapezoidal Channel
Method	Manning's Formula
Solve For	Channel Depth
Input Data	
Mannings Coefficient	0.025
Channel Slope	0.010000 ft/ft
Left Side Slope	4.00 H:V
Right Side Slope	4.00 H:V
Bottom Width	4.00 ft
Discharge	386.00 cfs
Results	
Depth	2.95 ft
Flow Area	46.6 ft <sup>2</sup>
Wetted Perimeter	28.32 ft
Top Width	27.60 ft
Critical Depth	3.11 ft
Critical Slope	0.007795 ft/ft
Velocity	8.28 ft/s
Velocity Head	1.07 ft
Specific Energy	4.02 ft
Froude Number	1.12
Flow Type	Supercritical

Page 1 of 1

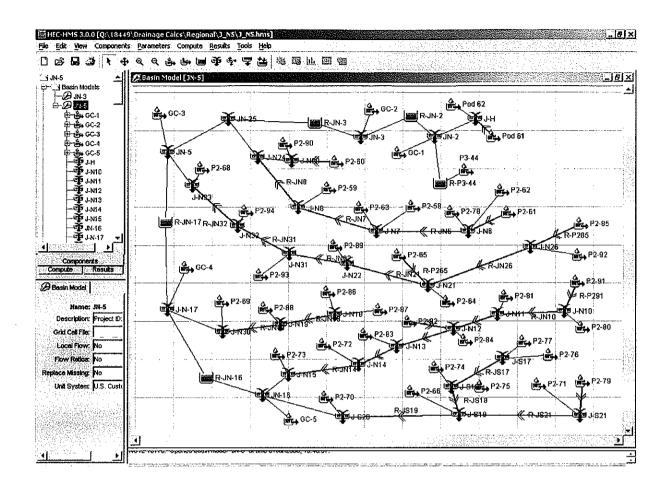
Project Description					
Worksheet	Channel J-N5 (20060521)				
Flow Element	Trapezoidal Channel				
Method	Manning's Formula				
Solve For	Channel Depth				
Input Data					
Mannings Coefficient	0.025				
Channel Slope	0.005000 ft/ft				
Left Side Slope	4.00 H:V				
Right Side Stope	4.00 H:V				
Bottom Width	25.00 ft				
Discharge	722.00 cfs				
Results					
Depth	2.85 ft				
Flow Area	103.6 ft²				
Wetted Perimeter	48.47 ft				
Top Width	47.77 ft				
Critical Depth	2.56 ft				
Critical Slope	0.007381 ft/ft				
Velocity	6.97 ft/s				
Velocity Head	0.76 ft				
Specific Energy	3.60 ft				
Froude Number	0.83				
Flow Type	Subcritical				

**GOLDEN VALLEY RANCH** 

#### **APPENDIX D**

### HYDROLOGY – (AREAS 1 – 3) LOCAL ANALYSIS

HEC-HMS Local Analysis – Results Junctions J-N5, J-S26, & J-MG1 Shed and Routing Parameters (Junctions J-N5 & J-MG1) Areas 1 -3 Tables and Exhibits (from individual Technical Drainage Analysis, Areas 1-3)



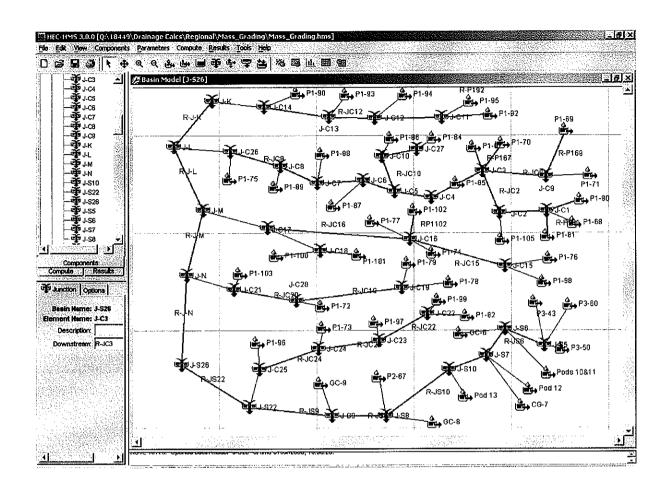
Project: J-JN5 100yr-6hr

Description Basin: JN-5 & Met: J-JN5 100yr-6hr & Control: Control 1

Description	ט פייונו. אוויס מ		Tuuyr-onr & Conti	or. Control
Hydrologic	Drainage Area	Peak		Volume
Element	(sq mi)	Discharge	Time of Peak	(ac-ft)
Liettient	(sq iii)	(cfs)		(ac-it)
GC-1	0.0262	24.7	01Jan3000, 05:11	0.92
GC-2	0.0293	26.12	01Jan3000, 05:12	1.03
GC-3	0.0144	13.18	01Jan3000, 05:11	0.51
GC-4	0.0072		01Jan3000, 05:11	0.25
GC-5	0.0262		01Jan3000, 05:11	0.92
J-H	0.1147		01Jan3000, 05:13	10.53
J-N-17	0.2034		01Jan3000, 05:18	19.79
J-N10	0.005		01Jan3000, 05:12	0.55
J-N11	0.022		01Jan3000, 05:14	2.41
J-N12	0.039		01Jan3000, 05:13	4.27
J-N13	0.051		01Jan3000, 05:14	5.58
J-N14	0.061		01Jan3000, 05:14	6.68
J-N15	0.071		01Jan3000, 05:14	7.77
J-N18	0.011		01Jan3000, 05:13	1.2
J-N19	0.012		01Jan3000, 05:16	1.31
J-N20	0.018		01Jan3000, 05:13	1.97
J-N21	0.028		01Jan3000, 05:14	3.07
J-N22	0.039		01Jan3000, 05:12	4.27
J-N23	0.058		01Jan3000, 05:14	6.36
J-N24	0.068		01Jan3000, 05:16	7.45
J-N26	0.013		01Jan3000, 05:12	1.42
J-N30	0.021		01Jan3000, 05:17	2.3
J-N31	0.0452		01Jan3000, 05:12	4.95
J-N32	0.0514		01Jan3000, 05:12	5.63
J-N6	0.026		01Jan3000, 05:13	2.85
J-N7	0.041		01Jan3000, 05:15	4.49
J-N8	0.05		01Jan3000, 05:18	5.47
J-S17	0.016		01Jan3000, 05:13	1.75
J-S18	0.031		01Jan3000, 05:13	3.39
J-S19	0.058		01Jan3000, 05:15	6.35
J-S20	0.078		01Jan3000, 05:17	8.54
J-S21	0.013		01Jan3000, 05:12	1.42
JN-1	0.0543		01Jan3000, 05:13	3.5
JN-16	0.1752		01Jan3000, 05:15	17.24
JN-2	0.169		01Jan3000, 05:13	14.03
JN-25	0.2663		01Jan3000, 05:22	22.5
JN-3	0.1983		01Jan3000, 05:18	15.06
JN-5	0.5421		01Jan3000, 05:21	49.16
P2-58	0.009		01Jan3000, 05:14	0.98
P2-59	0.009		01Jan3000, 05:16	0.98
P2-60	0.011		01Jan3000, 05:14	1.2
P2-61	0.006		01Jan3000, 05:17	0.66
P2-62	0.012		01Jan3000, 05:17	1.31
P2-63	0.006		01Jan3000, 05:13	0.66
P2-64	0.000		01Jan3000, 05:12	1.42
P2-65	0.002		01Jan3000, 05:12	0.22
P2-66	0.002		01Jan3000, 05:17	1.53
1 4-00	0.014	20.07	o radioodo, 05.17	1.03

	<del>,</del>			
Hydrologic	Drainage Area	Peak		Volume
Element	(sq mi)	Discharge	Time of Peak	(ac-ft)
Elettietit	(541111)	(cfs)		(ac-ii)
P2-68	0.0066	14.56	01Jan3000, 05:12	0.72
P2-69	0.009		01Jan3000, 05:14	0.98
P2-70	0.02	43.84	01Jan3000, 05:13	2.19
P2-71	0.007		01Jan3000, 05:11	0.77
P2-72	0.01		01Jan3000, 05:16	1.09
P2-73	0.01		01Jan3000, 05:13	1.09
P2-74	0.009		01Jan3000, 05:12	0.98
P2-75	0.006		01Jan3000, 05:10	0.66
P2-76	0.011		01Jan3000, 05:14	1.2
P2-77	0.005		01Jan3000, 05:11	0.55
P2-78	0.008		01Jan3000, 05:09	0.88
	0.006		01Jan3000, 05:09	0.66
P2-79			•	0.33
P2-80	0.003		01Jan3000, 05:10	
P2-81	0.017		01Jan3000, 05:13	1.86
P2-82	0.008		01Jan3000, 05:10	0.88
P2-83	0.012		01Jan3000, 05:13	1.31
P2-84	0.009		01Jan3000, 05:11	0.98
P2-85	0.005		01Jan3000, 05:10	0.55
P2-86	0.002		01Jan3000, 05:10	0.22
P2-87	0.009		01Jan3000, 05:12	0.98
P2-88	0.001		01Jan3000, 05:15	0.11
P2-89	0.011	28.11	01Jan3000, 05:09	1.2
P2-90	0.007	17.25	01Jan3000, 05:10	0.77
P2-91	0.002	4.71	01Jan3000, 05:11	0.22
P2-92	800.0	18.49	01Jan3000, 05:11	0.88
P2-93	0.0062	14.49	01Jan3000, 05:11	0.68
P2-94	0.0062	15.96	01Jan3000, 05:09	0.68
P3-44	0.0281	49.08	01Jan3000, 05:15	2.58
Pod 61	0.0709		01Jan3000, 05:12	6.51
Pod 62	0.0438		01Jan3000, 05:11	4.02
R-JN-16	0.1752		01Jan3000, 05:20	17.24
R-JN-17	0.2034		01Jan3000, 05:24	19.79
R-JN-2	0.169		01Jan3000, 05:19	14.03
R-JN-3	0.1983		01Jan3000, 05:26	15.06
R-JN10	0.005		01Jan3000, 05:16	0.55
R-JN11	0.022		01Jan3000, 05:15	2.41
R-JN12	0.039		01Jan3000, 05:14	4.27
R-JN13	0.051		01Jan3000, 05:14	5.58
R-JN14	0.061		01Jan3000, 05:15	6.68
	0.001		01Jan3000, 05:16	1.21
R-JN18			01Jan3000, 05:18	1.32
R-JN19	0.012		01Jan3000, 05:14	3.07
R-JN21	0.028		•	
R-JN22	0.039		01Jan3000, 05:12	4.27
R-JN26	0.013		01Jan3000, 05:14	1.43
R-JN31	0.0452		01Jan3000, 05:13	4.95
R-JN32	0.0514		01Jan3000, 05:14	5.63
R-JN6	0.026		01Jan3000, 05:15	2.85
R-JN7	0.041		01Jan3000, 05:18	4.49
R-JN8	0.05	97.22	01Jan3000, 05:18	5.48

Hydrologic Element	Drainage Area (sq mi)	Peak Discharge (cfs)	Time of Peak	Volume (ac-ft)
R-JS17	0.016	34.45	01Jan3000, 05:15	1.75
R-JS18	0.031	67.46	01Jan3000, 05:16	3.4
R-JS19	0.058	123.41	01Jan3000, 05:18	6.36
R-JS21	0.013	31.22	01Jan3000, 05:13	1.42
R-P260	0.011	23.24	01Jan3000, 05:16	1.21
R-P261	0.006	11.42	01Jan3000, 05:22	0.66
R-P265	0.002	5.24	01Jan3000, 05:16	0.22
R-P279	0.006	15.22	01Jan3000, 05:13	0.66
R-P282	0.008	19.28	01Jan3000, 05:13	0.88
R-P285	0.005	11.99	01Jan3000, 05:14	0.55
R-P286	0.002	4.84	01Jan3000, 05:16	0.22
R-P291	0.002	4.69	01Jan3000, 05:14	0.22
R-P3-44	0.0281	28.22	01Jan3000, 05:29	2.58
R-pod62	0.0709	140.67	01Jan3000, 05:13	6.51



Project:

J-S26

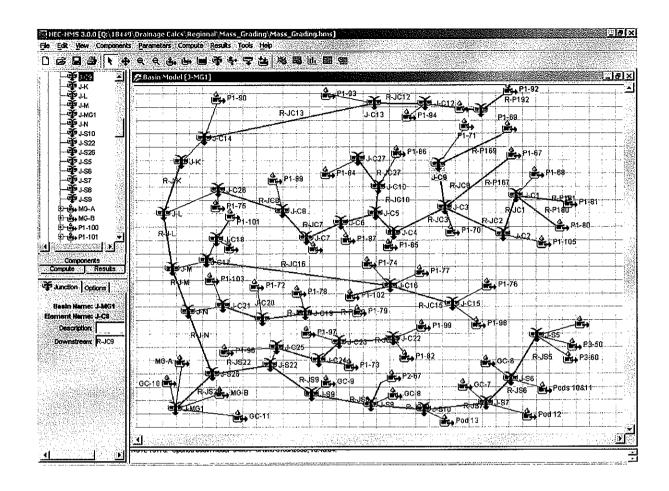
Description

Basin: J-S26 & Met: J-S26 & Control: Control 1

Description	Dasin. 0-020 & N	"	a oi. Ooria oi i	-
Hydrologic Element	Drainage Area (sq mi)	Peak Discharge (cfs)	Time of Peak	Volume (ac-ft)
CG-7	0.0167		01Jan3000, 05:10	1.04
GC-6	0.0304		01Jan3000, 05:15	1.88
GC-8	0.0924		01Jan3000, 05:15	5.73
GC-9	0.0417		01Jan3000, 05:15	2.58
J-C1	0.026		01Jan3000, 05:15	2.83
J-C10	0.026		01Jan3000, 05:15	2.83
J-C11	0.008		01Jan3000, 05:10	0.87
J-C12	0.012		01Jan3000, 05:15	1.31
J-C13	0.016		01Jan3000, 05:15	1.74
J-C14	0.02		01Jan3000, 05:15	2.18
J-C15	0.021		01Jan3000, 05:15	2.28
J-C16	0.044		01Jan3000, 05:15	4.78
J-C17	0.056		01Jan3000, 05:15	6.09
J-C18	0.012		01Jan3000, 05:15	1.3
J-C19	0.019		01Jan3000, 05:15	2.07
J-C2	0.033		01Jan3000, 05:15	3.59
J-C20	0.023		01Jan3000, 05:15	2.5
J-C21	0.026		01Jan3000, 05:15	2.83
J-C22	0.01		01Jan3000, 05:10	1.09
J-C23	0.015		01Jan3000, 05:15	1.63
J-C24	0.018		01Jan3000, 05:15	1.96
J-C25	0.036		01Jan3000, 05:15	3.92
J-C26	0.138		01Jan3000, 05:20	15.01
J-C27	0.012		01Jan3000, 05:10	1.3
J-C3	0.062		01Jan3000, 05:15	6.74
J-C4	0.069		01Jan3000, 05:15	7.51
J-C5	0.095		01Jan3000, 05:15	10.33
J-C6	0.103		01Jan3000, 05:15	11.2
J-C7	0.117		01Jan3000, 05:15	12.72
J-C8	0.131		01Jan3000, 05:15	14.25
J-C9	0.006		01Jan3000, 05:10	0.65
J-K	0.02	39.37	01Jan3000, 05:15	2.18
J-L	0.158	290.61	01Jan3000, 05:15	17.19
J-M	0.214		01Jan3000, 05:15	23.3
J-N	0.24		01Jan3000, 05:15	26.16
J-S10	0.5167	458.82	01Jan3000, 05:30	47.27
J-S22	0.7065		01Jan3000, 05:30	61.47
J-S26	0.9465		01Jan3000, 05:20	87.65
J-S5	0.1092		01Jan3000, 05:15	10.1
J-S6	0.3836		01Jan3000, 05:20	33.03
J-S7	0.464		01Jan3000, 05:25	41.29
J-S8	0.6288		01Jan3000, 05:25	54.96
J-S9	0.6705		01Jan3000, 05:40	57.54
P1-100	0.005		01Jan3000, 05:10	0.54
P1-101	0.007		01Jan3000, 05:15	0.76
P1-102	0.003		01Jan3000, 05:10	0.33
P1-103	0.003		01Jan3000, 05:10	0.33
P1-105	0.007		01Jan3000, 05:15	0.76
				50

Hydrologic Element	Drainage Area (sq mi)	Peak Discharge (cfs)	Time of Peak	Volume (ac-ft)
P1-67	0.011		01Jan3000, 05:10	1.2
P1-68	0.008		01Jan3000, 05:15	0.87
P1-69	0.002		01Jan3000, 05:10	0.22
P1-70	0.012		01Jan3000, 05:15	1.3
P1-71	0.004		01Jan3000, 05:10	0.43
P1-72	0.004		01Jan3000, 05:10	0.43
P1-73	0.003		01Jan3000, 05:10	0.33
P1-74	0.011		01Jan3000, 05:10	1.2
P1-75	0.007		01Jan3000, 05:10	0.76
P1-76	0.009		01Jan3000, 05:15	0.98
P1-77	0.009		01Jan3000, 05:10	0.98
P1-78	0.009		01Jan3000, 05:15	0.98
P1-79	0.01		01Jan3000, 05:10	1.09
P1-80	0.016		01Jan3000, 05:15	1.74
P1-81	0.002		01Jan3000, 05:05	0.22
P1-82	0.008		01Jan3000, 05:10	0.87
P1-84	0.012		01Jan3000, 05:10	1.3
P1-85	0.007		01Jan3000, 05:10	0.76
P1-86	0.014		01Jan3000, 05:15	1.52
P1-87	800.0		01Jan3000, 05:15	0.87
P1-88	0.014		01Jan3000, 05:15	1.52
P1-89	0.014		01Jan3000, 05:20	1.52
P1-90	0.004		01Jan3000, 05:10	0.43
P1-92	0.004		01Jan3000, 05:10	0.43
P1-93	0.004		01Jan3000, 05:10	0.43
P1-94	0.004		01Jan3000, 05:15	0.43
P1-95	0.004		01Jan3000, 05:10	0.43
P1-96	0.018		01Jan3000, 05:15	1.96
P1-97	0.005		01Jan3000, 05:15	0.54
P1-98	0.012		01Jan3000, 05:15	1.3
P1-99	0.002		01Jan3000, 05:10	0.22
P2-67	0.0197		01Jan3000, 05:10	1.96
P3-43	0.0393		01Jan3000, 05:10	2.83
P3-50	0.0303		01Jan3000, 05:15	3.15
P3-60	0.0396		01Jan3000, 05:15	4.12
Pod 12	0.0637		01Jan3000, 05:10	7.23
Pod 13	0.0527		01Jan3000, 05:05	5.98
Pods 10&11	0.244		01Jan3000, 05:20	21.04
R-C-11	0.008		01Jan3000, 05:15	0.87
R-J-K	0.02		01Jan3000, 05:15	2.18
R-J-L	0.158		01Jan3000, 05:20	17.21
R-J-M	0.214		01Jan3000, 05:15	23.33
R-J-N	0.24		01Jan3000, 05:15	26.18
R-JC1	0.026		01Jan3000, 05:15	2.83
R-JC10	0.026		01Jan3000, 05:15	2.83
R-JC12	0.012		01Jan3000, 05:15	1.31
R-JC13	0.016		01Jan3000, 05:15	1.75
R-JC15	0.021		01Jan3000, 05:15	2.28
R-JC16	0.044		01Jan3000, 05:15	4.79
R-JC19	0.019	37.79	01Jan3000, 05:15	2.07

Hydrologic Element	Drainage Area	Peak Discharge	Time of Peak	Volume (ac-ft)
	(sq mi)	(cfs)	<u> </u>	
R-JC2	0.033		01Jan3000, 05:15	3.59
R-JC20	0.023		01Jan3000, 05:15	2.5
R-JC22	0.01		01Jan3000, 05:15	1.09
R-JC23	0.015		01Jan3000, 05:15	1.64
R-JC24	0.018	34.36	01Jan3000, 05:15	1.97
R-JC27	0.012	25.45	01Jan3000, 05:15	1.31
R-JC3	0.062	122.14	01Jan3000, 05:15	6.74
R-JC4	0.069	135.87	01Jan3000, 05:15	7.51
R-JC5	0.095	185.66	01Jan3000, 05:15	10.33
R-JC6	0.103	196.83	01Jan3000, 05:15	11.2
.R-JC7	0.117	222.14	01Jan3000, 05:15	12.72
R-JC8	0.131	242.41	01Jan3000, 05:20	14.25
R-JC9	0.006	13.98	01Jan3000, 05:10	0.65
R-JS10	0.5167	420.38	01Jan3000, 05:40	47.27
R-JS22	0.7065	465.63	01Jan3000, 05:50	61.47
R-JS5	0.1092	130.58	01Jan3000, 05:25	10.1
R-JS6	0.3836	422.37	01Jan3000, 05:30	33.03
R-JS7	0.464	449.1	01Jan3000, 05:30	41.29
R-JS8	0.6288	446.96	01Jan3000, 05:45	54.96
R-JS9	0.6705	458.56	01Jan3000, 05:45	57.54
R-P167	0.011	22.23	01Jan3000, 05:15	1.19
R-P169	0.002	4.58	01Jan3000, 05:10	0.22
R-P170	0.012	23.84	01Jan3000, 05:15	1.3
R-P179	0.01	20.56	01Jan3000, 05:10	1.09
R-P180	0.016	31.76	01Jan3000, 05:15	1.74
R-P181	0.002	` 4.91	01Jan3000, 05:10	0.22
R-P192	0.004	8.07	01Jan3000, 05:15	0.44
R-P2-67	0.0197	39.16	01Jan3000, 05:15	1.96
RP1101	0.007		01Jan3000, 05:15	0.76
RP1102	0.003		01Jan3000, 05:15	0.33
R-P2-67	0.0197		01Jan3000, 05:15	1.96
RP1101	0.007		01Jan3000, 05:15	0.76
RP1102	0.003		01Jan3000, 05:15	0.33



Project:

J-MG1 100yr-6hr

Description Basin: J-MG1 & Met: J-MG1 100yr-6hr & Control: Control 1

Description			-6hr & Control: Control 1	
Hydrologic Element	Drainage Area (sq mi)	Peak Discharge (cfs)	Time of Peak	Volume (ac-ft)
GC-10	0.054	32.47	01Jan3000, 05:15	1.62
GC-11	0.134		01Jan3000, 05:30	4.01
GC-6	0.0304		01Jan3000, 05:15	0.91
GC-7	0.0167		01Jan3000, 05:10	0.5
GC-8	0.0924		01Jan3000, 05:15	2.77
GC-9	0.0417		01Jan3000, 05:15	1.25
J-C1	0.026		01Jan3000, 05:15	2.81
J-C10	0.026		01Jan3000, 05:15	2.81
J-C11	0.008		01Jan3000, 05:10	0.87
J-C12	0.012		01Jan3000, 05:15	1.3
J-C13	0.016		01Jan3000, 05:15	1.73
J-C14	0.02		01Jan3000, 05:15	2.17
J-C15	0.021		01Jan3000, 05:15	2.27
J-C16	0.044		01Jan3000, 05:15	4.75
J-C17	0.056		01Jan3000, 05:15	6.06
J-C18	0.012		01Jan3000, 05:15	1.3
J-C19	0.019		01Jan3000, 05:15	2.06
J-C2	0.033		01Jan3000, 05:15	3.57
J-C20	0.023		01Jan3000, 05:15	2.49
J-C21	0.026		01Jan3000, 05:15	2.49
J-C22	0.01		01Jan3000, 05:10	1.08
J-C23	0.015		01Jan3000, 05:15	1.63
J-C24	0.018		01Jan3000, 05:15	1.95
J-C25	0.036		01Jan3000, 05:15	3.9
J-C26	0.138		01Jan3000, 05:20	14.92
J-C27	0.012		01Jan3000, 05:10	
J-C3	0.062		01Jan3000, 05:15	1.3
J-C4	0.069		01Jan3000, 05:15	6.71
J-C5	0.095		01Jan3000, 05:15	7.46
J-C6	0.103		01Jan3000, 05:15	10.28
J-C7	0.117		01Jan3000, 05:15	11.14
J-C8	0.131		01Jan3000, 05:15	12.65
J-C9	0.006		01Jan3000, 05:10	14.17 0.65
J-K	0.00		01Jan3000, 05:15	
J-L	0.158		01Jan3000, 05:15	2.17
J-M	0.214		01Jan3000, 05:15	17.09
J-MG1	1.4525		01Jan3000, 05:30	23.18
J-N	0.24		01Jan3000, 05:30	104.63
J-S10	0.5167		01Jan3000, 05:35	26.02
J-S22	0.7065		01Jan3000, 05:30	45.5
J-S26	0.9465			55.36
J-S5	0.1092		01Jan3000, 05:20 01Jan3000, 05:15	81.4
J-S6	0.3836			10.04
J-S7	0.464		01Jan3000, 05:20	31.86
J-S8	0.6288		01Jan3000, 05:25	39.55
J-S9	0.6705		01Jan3000, 05:35	50.21
MG-A	0.6703		01Jan3000, 05:45	51.46
MG-B			01Jan3000, 05:30	7.25
U-O-III	0.187	124.36	01Jan3000, 05:30	10.35

	Toomnour Dramage Grady				
Hydrologic Element	Drainage Area (sq mi)	Peak Discharge (cfs)	Time of Peak	Volume (ac-ft)	
P1-100	0.005	10.07	01Jan3000, 05:10	0.54	
P1-101	0.007	13.43	01Jan3000, 05:15	0.76	
P1-102	0.003	6.33	01Jan3000, 05:10	0.32	
P1-103	0.003	6.23	01Jan3000, 05:10	0.32	
P1-105	0.007	13.53	01Jan3000, 05:15	0.76	
P1-67	0.011	22.39	01Jan3000, 05:10	1.19	
P1-68	0.008	15.08	01Jan3000, 05:15	0.86	
P1-69	0.002	4.71	01Jan3000, 05:10	0.22	
P1-70	0.012	23.73	01Jan3000, 05:15	1.3	
P1-71	0.004	9.51	01Jan3000, 05:10	0.43	
P1-72	0.004	8.23	01Jan3000, 05:10	0.43	
P1-73	0.003	6.95	01Jan3000, 05:10	0.32	
P1-74	0.011	23.2	01Jan3000, 05:10	1.19	
P1-75	0.007	15.27	01Jan3000, 05:10	0.76	
P1-76	0.009	17.44	01Jan3000, 05:15	0.97	
P1-77	0.009	20.98	01Jan3000, 05:10	0.97	
P1-78	0.009	17.64	01Jan3000, 05:15	0.97	
P1-79	0.01	20.99	01Jan3000, 05:10	1.08	
P1-80	0.016	31.66	01Jan3000, 05:15	1.73	
P1-81	0.002	4.92	01Jan3000, 05:05	0.22	
P1-82	800.0	17.81	01Jan3000, 05:10	0.86	
P1-84	0.012	25.82	01Jan3000, 05:10	1.3	
P1-85	0.007	15.88	01Jan3000, 05:10	0.76	
P1-86	0.014	24.12	01Jan3000, 05:15	1.51	
P1-87	0.008		01Jan3000, 05:15	0.86	
P1-88	0.014		01Jan3000, 05:15	1.51	
P1-89	0.014		01Jan3000, 05:20	1.51	
P1-90	0.004	8.61	01Jan3000, 05:10	0.43	
P1-92	0.004		01Jan3000, 05:10	0.43	
P1-93	0.004	8.4	01Jan3000, 05:10	0.43	
P1-94	0.004		01Jan3000, 05:15	0.43	
P1-95	0.004	8.31	01Jan3000, 05:10	0.43	
P1-96	0.018	31.01	01Jan3000, 05:15	1.95	
.P1-97	0.005	9.27	01Jan3000, 05:15	0.54	
P1-98	0.012		01Jan3000, 05:15	1.3	
P1-99	0.002	4.28	01Jan3000, 05:10	0.22	
P2-67	0.0197		01Jan3000, 05:10	1.95	
P3-43	0.0393		01Jan3000, 05:10	2.81	
P3-50	0.0303	57.25	01Jan3000, 05:15	3.14	
P3-60	0.0396		01Jan3000, 05:15	4.1	
Pod 12	0.0637		01Jan3000, 05:10	7.19	
Pod 13	0.0527		01Jan3000, 05:05	5.95	
Pods 10&11	0.244		01Jan3000, 05:20	20.91	
R-C-11	0.008		01Jan3000, 05:15	0.87	
R-J-K	0.02		01Jan3000, 05:15	2.17	
R-J-L	0.158		01Jan3000, 05:20	17.12	
R-J-M	0.214		01Jan3000, 05:15	23.2	
R-J-N	0.24		01Jan3000, 05:15	26.04	
R-JC1	0.026		01Jan3000, 05:15	2.81	
R-JC10	0.026		01Jan3000, 05:15	2.81	

Q:\18449\Drainage Calcs\Regional\HMS Results Spreadsheet.xls J-MG1\_6hr

Hydrologic Element	Drainage Area	Peak Discharge	Time of Peak	Volume (ac-ft)	
	(sq mi)	(cfs)		` ` '	
R-JC12	0.012		01Jan3000, 05:15	1.3	
R-JC13	0.016		01Jan3000, 05:15	1.74	
R-JC15	0.021		01Jan3000, 05:15	2.27	
R-JC16	0.044		01Jan3000, 05:15	4.76	
R-JC19	0.019		01Jan3000, 05:15	2.06	
R-JC2	0.033		01Jan3000, 05:15	3.57	
R-JC20	0.023	44.41	01Jan3000, 05:15	2.49	
R-JC22	0.01	21.82	01Jan3000, 05:15	1.09	
R-JC23	0.015	<b>29.57</b>	01Jan3000, 05:15	1.63	
R-JC24	0.018	34.17	01Jan3000, 05:15	1.96	
R-JC27	0.012	25.32	01Jan3000, 05:15	1.3	
R-JC3	0.062	121.55	01Jan3000, 05:15	6.71	
R-JC4	0.069	135.22	01Jan3000, 05:15	7.46	
R-JC5	0.095		01Jan3000, 05:15	10.28	
R-JC6	0.103	195.87	01Jan3000, 05:15	11.14	
R-JC7	0.117	220.99	01Jan3000, 05:15	12.65	
R-JC8	0.131		01Jan3000, 05:20	14.17	
R-JC9	0.006	13.91	01Jan3000, 05:10	0.65	
R-JS10	0.5167	398.95	01Jan3000, 05:40	45.5	
R-JS22	0.7065		01Jan3000, 05:55	55.36	
R-JS26	0.9465	726.79	01Jan3000, 05:25	81.4	
R-JS5	0.1092		01Jan3000, 05:25	10.04	
R-JS6	0.3836	405.74	01Jan3000, 05:30	31.86	
R-JS7	0.464		01Jan3000, 05:35	39.55	
R-JS8	0.6288		01Jan3000, 05:50	50.21	
R-JS9	0.6705		01Jan3000, 05:50	51.46	
R-P167	0.011		01Jan3000, 05:15	1.19	
R-P169	0.002	4.55	01Jan3000, 05:10	0.22	
R-P170	0.012		01Jan3000, 05:15	1.3	
R-P179	0.01		01Jan3000, 05:10	1.08	
R-P180	0.016		01Jan3000, 05:15	1.73	
R-P181	0.002		01Jan3000, 05:10	0.22	
R-P192	0.004		01Jan3000, 05:15	0.43	
R-P2-67	0.0197		01Jan3000, 05:15	1.95	
RP1101	0.007		01Jan3000, 05:15	0.76	
RP1102	0.003		01Jan3000, 05:15	0.32	
			•		

Shed         Area (sq mi)         CN         TLag (n)           GC-1         0.0262         79         9.487           GC-2         0.0293         79         10.54           GC-3         0.0144         79         10.07           GC-4         0.0072         79         9.5           GC-5         0.0262         79         9.5           P2-58         0.009         91         15.3           P2-59         0.009         91         17.6           P2-60         0.011         91         15	5 7
GC-2 0.0293 79 10.54 GC-3 0.0144 79 10.07 GC-4 0.0072 79 9.5 GC-5 0.0262 79 9.5 P2-58 0.009 91 15.3 P2-59 0.009 91 17.6	5
GC-3     0.0144     79     10.07       GC-4     0.0072     79     9.5       GC-5     0.0262     79     9.5       P2-58     0.009     91     15.3       P2-59     0.009     91     17.6	7
GC-4     0.0072     79     9.5       GC-5     0.0262     79     9.5       P2-58     0.009     91     15.3       P2-59     0.009     91     17.6	
GC-5     0.0262     79     9.5       P2-58     0.009     91     15.3       P2-59     0.009     91     17.6	
P2-58 0.009 91 15.3 P2-59 0.009 91 17.6	
P2-59 0.009 91 17.6	
P2-60 0.011 01 15	
12-00 0.011 31 13	
P2-61 0.006 91 18.2	
P2-62 0.012 91 17	
P2-63 0.006 91 14.4	
P2-64 0.013 91 13.8	
P2-65 0.002 91 8.6	
P2-66 0.014 91 18.2	
P2-68 0.0066 91 13.8	
P2-69 0.009 91 15.7	
P2-70 0.02 91 14	
P2-71 0.007 91 12.6	
P2-72 0.01 91 17.1	
P2-73 0.01 91 14.1	
P2-74 0.009 91 13.2	
P2-75 0.006 91 10.4	
P2-76 0.011 91 15.2	
P2-77 0.005 91 12.2	
P2-78 0.008 91 9.7	
P2-79 0.006 91 9.8	
P2-80 0.003 91 11.3	
P2-81 0.017 91 14.6	
P2-82 0.008 91 11.2	
P2-83 0.012 91 14.7	
P2-84 0.009 91 11.7	
P2-85 0.005 91 11.4	
P2-86 0.002 91 11	
P2-87 0.009 91 13.8	
P2-88 0.001 91 16,2	
P2-89 0.011 91 9.7	
P2-90 0.007 91 10.7	
P2-91 0.002 91 12	
P2-92 0.008 91 12.5	
P2-93 0.0062 91 12.2	
P2-94 0.0062 91 9.5	
P3-44 0.0281 87 16.4	
Pod 61 0.0709 87 12.79	)
Pod 62 0.0438 87 12.23	

Kinematic F	Routing						
Reach	Length (ft)	Slope (ft/ft)	Manning	Subreachs	Shape	Bottom (ft)	Sideslope
R-JN10	1134	0.011	0.016	5	Trapezoid	60	0.5
R-JN11	260	0.006	0.016	5	Trapezoid	60	0.5
R-JN12	270	0.007	0.016	5	Trapezoid	60	0.5
R-JN13	180	0.006	0.016	5	Trapezoid	60	0.5
R-JN14	200	0.01	0.016	5	Trapezoid	60	0.5
R-JN18	1016	0.011	0.016	5	Trapezoid	60	0.5
R-JN19	490	0.005	0.016	5	Trapezoid	60	0.5
R-JN21	140	0.017	0.016	5	Trapezoid	60	0.5
R-JN22	130	0.0114	0.016	5	Trapezoid	60	0.5
R-JN26	490	0.005	0.016	5	Trapezoid	60	0.5
R-JN31	480	0.0079	0.016	5	Trapezoid	60	0.5
R-JN32	640	0.005	0.016	5	Trapezoid	60	0.5
R-JN6	1084	0.011	0.016	5	Trapezoid	60	0.5
R-JN7	1590	0.009	0.016	5	Trapezoid	60	0.5
R-JN8	137	0.014	0.016	5	Trapezoid	60	0.5
R-JS17	725	800.0	0.016	5	Trapezoid	60	0.5
R-JS18	1480	0.006	0.016	5	Trapezoid	60	0.5
R-JS19	1480	0.006	0.016	5	Trapezoid	60	0.5
R-JS21	230	0.005	0.016	5	Trapezoid	60	0.5
R-P260	730	0.015	0.016	5	Trapezoid	60	0.5
R-P261	1310	0.01	0.016	5	Trapezoid	60	0.5
R-P265	1238	0.007	0.016	5	Trapezoid	60	0.5
R-P279	811	0.005	0.016	5	Trapezoid	60	0.5
R-P282	915	0.008	0.016	5	Trapezoid	60	0.5
R-P285	850	0.008	0.016	5	Trapezoid	60	0.5
R-P286	900	0.008	0.016	5	Trapezoid	60	0.5
R-P291	590	0.01	0.016	5	Trapezoid	60	0.5
R-pod62	1900	0.01	0.013	2	Circle	4	

Modified Puls Routing Reach louting Table

Shed Para	meters (SCS	Methods	)
Shed	Area (sq mi	CN	TLag (min)
CG-7	0.0167	79	7.38
GC-6	0.0304	79	13.17
GC-8	0.0924	79	15.37
GC-9	0.0417	79	15.65
MG	0.34	79	26
P1-100	0.005	91	13.7
P1-101	0.007	91	15.8
P1-102	0.003	91	12.8
P1-103	0.003	91	13.1
P1-105	0.007	91	15.5
P1-67	0.011	91	13.5
P1-68	800.0	91	16.4
P1-69	0.002	91	9.7
P1-70	0.012	91	14.2
P1 <del>-</del> 71	0.004	91	9.1
P1-72	0.004	91	13.3
P1-73	0.003	91	10.4
P1-74	0.011	91	12.8
P1-75	0.007	91	12.1
P1-76	0.009	91	15.4
P1-77	0.009	91	10.2
P1-78	0.009	91	14.8
P1-79	0.01	91	12.9
P1-80	0.016	91	14.1
P1-81	0.002	91	7.9
P1-82	0.008	91	11.6
P1-84	0.012	91	12.4
P1-85	0.007	91	11.1
P1-86	0.014	91	18.9
P1-87	0.008	91	17.9
P1-88	0.014	91	17
P1-89	0.014	91	22
P1-90	0.004	91	12.4
P1-92	0.004	91	13.2
P1-93	0.004	91	12.9
P1-94	0.004	91	16.5
P1-95	0.004	91	13.1
P1-96	0.018	91	18.9
P1-97	0.005	91	16.9
P1-98	0.012	91	16.7
P1-99	0.002	91	12.5
P2-67	0.0197	89	11.65
P3-43	0.0393	82	12.38
P3-50	0.0303	90	14.97
P3-60	0.0396	90	17.58
Pod 12	0.0637	92	9.69
Pod 13	0.0527	92	3.45
ods 10&1		85.8	18.64

Kinematic Routing							
Reach	Length (ft)	Slope (ft/ft)	Manning	Subreachs	Shape	Bottom (ft)	Sideslope
R-C-11	250	0.007	0.016	5	Trapezoid	60	0.5
R-JC1	530	0.01	0.016	5	Trapezoid	20	0.5
R-JC10	50	0.01	0.016	5	Trapezoid	20	0.5
R-JC12	170	0.007	0.016	5	Trapezoid	60	0.5
R-JC13	150	0.007	0.016	5	Trapezoid	60	0.5
R-JC15	820	0.007	0.016	5	Trapezoid	60	0.5
R-JC16	330	0.007	0.016	5	Trapezoid	60	0.5
R-JC19	830	0.007	0.016	5	Trapezoid	60	0.5
R-JC2	50	0.01	0.016	5	Trapezoid	20	0.5
R-JC20	680	0.0109	0.016	5	Trapezoid	60	0.5
R-JC22	1000	0.01	0.025	5	Trapezoid	100	0
R-JC23	550	0.008	0.016	5	Trapezoid	60	0.5
R-JC24	390	0.009	0.016	5	Trapezoid	60	0.5
R-JC27	1130	0.007	0.016	5	Trapezoid	60	0.5
R-JC9	200	0.01	0.023	5	Trapezoid	20	0.5
R-J-K	379	0.008	0.013	5	Rectangle	8	
R-J-L	796	0.008	0.013	5	Rectangle	8	
R-J-M	882	800.0	0.013	5	Rectangle	8	
R-J-N	609	800.0	0.013	5	Rectangle	8	
RP1101	400	0.007	0.016	5	Trapezoid	60	0.5
RP1102	380	0.007	0.016	5	Trapezoid	60	0.5
R-P167	650	0.005	0.016	5	Trapezoid	60	0.5
R-P169	330	0.01	0.025	5	Trapezoid	50	0.5
R-P170	50	0.01	0.016	5	Trapezoid	20	0.5
R-P179	200	0.007	0.016	5	Trapezoid	60	0.5
R-P180	1140	0.007	0.016	5	Trapezoid	60	0.5
R-P181	730	0.007	0.016	5	Trapezoid	60	0.5
R-P192	250	0.007	0.016	5	Trapezoid	60	0.5
R-P2-67	1000	0.0071	0.025	2	Trapezoid	25	10

#### **Modified Puls Routing**

Reach	Routing Table		
R-JC3	R-JC3	1	nflow = Outflo
R-JC4	R-JC4	1	nflow = Outflov
R-JC5	R-JC5	1	nflow = Outflo
R-JC6	R-JC6	1	rflow = Outflor
R-JC7	R-JC7	1	nflow = Outflor
R-JC8	R-JC8	1	nflow = Outflo
R-J\$10	R-JS10	1	nflow = Outflo
R-JS22	R-JS8	1	nflow = Outflo
R-JS26	R-JS26	1	nflow = Outflo
R-JS5	R-JS5	1	nflow = Outflo
R-JS6	R-JS6	1	nflow = Outflo
R-JS7	R-JS7	1	nflow = Outflo
R-JS8	R-JS8	1	nflow = Outflo
R-JS9	R-JS9	1	nflow = Outflo

(	n Space	F-JC8	sta450-0	Storage	(ac-ft)	0.08514	0.16326	0.26618	0.40819	0.57128	0.73724	1.16079	1.64304	2.20293		R-JS26	16-7	Storage	(ac-ft)	2.6334	2.9938	3.7983	4.2393	4.6653	5.0782	5.4798	5.8767	6.8304	0
,	Area 1 - Ope	0	Flow		(cfs)		20	75	100	125	150	200	250	300		0	Flow		(cfs)	175	225	350	425	200	575	650	725	800	0.0000
																R-JS25	23-16	Storage	(ac-ft)	2.6971	3.1038	3.9253	4.7431	5.5216	6.2579	7.3429	8.0724	8.7823	0.0000
		R-JN-17	sta17-3	Storage	(ac-ft)	1.8021	2.2576	2.5762	2.9167	3.2477	3.5433	3.8253	4.0807	4.6527		0	Flow		(cfs)	175	225	300	375	420	525	900	675	750	0.0000
•	Leg	R-JN-16	sta25-17	Storage	(ac-ft)	0.9435	1.3105	1.6101	1.8765	2.1243	2.3533	2.5692	2.7784	3.1681		R-JS9	32-23	Storage	(ac-ft)	0.7780	0.9508	1.1323	1.3478	1.5563	1.7534	1.9401	2.1221	2.2972	0.0000
,	e - Center	R-JS-20	sta35-25	Storage	(ac-ft)	1.2523	1.5296	1.7502	1.9389	2.1101	2.2697	2.4155	2.5590	2.8300		R-JS8	58-32	Storage	(ac-ft)	3.3094	4.3877	5.3878	6.4218	7.4613	8.4831	9.4850	10.4658	11.4370	0.0000
9	GOIT COURS	0	Flow		(cfs)	25	20	75	100	125	150	175	200	250		F-JS10	77-58	Storage	(ac-ft)	4.1624	5.1140	5.9464	6.7051	7.4511	8.1533	8.8256	9.4753	10.1084	0.0000
																R-JS7	91-77	Storage	(ac-ft)	4.8630	5.4065	5.8735	6.3060	6.7049	7.0752	7.4384	7.7828	8.1149	0.0000
		6-N-3	sta17-6	Storage	(ac-ft)	0.567149	0.922394	1.197808	1.414463	1.665461	1.938189	2.245282	2.526997	3.090301		R-JS6	103-91	Storage	(ac-ft)	5.4793	6.1599	6.7562	7.2902	7.7873	8.2535	8.6939	9.1198	9.5346	0.0000
		JN-2	sta31-17	Storage	(ac-ft)	0.805425	1.205987	1.538718	1.832828	2.10676	2.366766	2.609809	2.843372	3.284176		R-JS5	114-103	Storage	(ac-ft)	7.6979	8.6390	9.4459	10.1065	10.7634	11.3875	11.9971	12.5803	13.1282	0.0000
1 44014	**		sta51-33	Storage	(ac-ft)	0.960216	1.454075	1.876653	2.231152	2.573829	2.882105	3.275413	3.77764	5.087408	th Leg	Ö	Volume		(ac-ft)	41.3242	43.0420	44.0402	44.7140	43.0517	41.0425	39,6333	35.7743	34.7934	0.0000
المارين المارين		0	Flow		(cfs)	25	20	75	100	125	150	175	200	250	ourse - South Leg	Sta 1	Flow		(cts)	100	150	200	250	300	320	400	450	200	0

Q:\18449\Drainage Calcs\Routing.xls Modified Puls Routing

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GOLDEN VALLEY RANCH

#### **APPENDIX A**

#### **AREA 1 – RESULTS AND DATA**

- HEC-HMS 100-YR, 6-HR SIMULATION
- HEC-HMS 10-YR, 6-HR SIMULATION
- NOAA ATLAS 14 PRECIPITATION
- STANDARD FORM 4

Project: Pod1\_S\_curve Simulation Run: Pod1-100yr

Start of Run: 01Jan3000, 01:00 Basin Model: POD 1

End of Run: 02Jan3000, 01:55 Meteorologic Model: S-Pattern 1(3.00lN)

Execution Time: 15Mar2006, 11:16:57 Control Specifications: Control 1

Volume Units: AC-FT

	•			
J-C1	0.0268	56.80	01Jan3000, 05:10	2.70
J-C10	0.0365	76.41	01Jan3000, 05:10	3.67
J-C11	0.0087	19.96	01Jan3000, 05:10	0.88
J-C12	0.0131	29.74	01Jan3000, 05:10	1.32
J-C13	0.0172	38.87	01Jan3000, 05:10	1.74
J-C14	0.0210	47.29	01Jan3000, 05:10	2.13
J-C15	0.0213	47.74	01Jan3000, 05:10	2.15
J-C16	0.0300	65.79	01Jan3000, 05:10	3.02
J-C17	0.0548	120.12	01Jan3000, 05:10	5.53
J-C18	0.0112	25.05	01Jan3000, 05:10	1.13
J-C19	0.0187	41.77	01Jan3000, 05:10	1.89
J-C2	0.0341	71.23	01Jan3000, 05:10	3.44
J-C20	0.0231	49.86	01Jan3000, 05:10	2.33
J-C21	0.0263	54.45	01Jan3000, 05:10	2.65
J-C22	0.0104	23.48	01Jan3000, 05:10	1.05
J-C23	0.0154	33.04	01Jan3000, 05:10	1.56
J-C24	0.0184	37.18	01Jan3000, 05:15	1.86
J-C25	0.0363	73.15	01Jan3000, 05:10	3.67
J-C26	0.1378	241.70	01Jan3000, 05:20	13.54
J-C27	0.0222	49.42	01Jan3000, 05:10	2.24
J-C3	0.0523	111.40	01Jan3000, 05:10	5.28
J-C4	0.0589	125.94	01Jan3000, 05:10	5.95
J-C5	0.0954	202.09	01Jan3000, 05:10	9.62
J-C6	0.1036	217.95	01Jan3000, 05:10	10.45
J-C7	0.1173	240.25	01Jan3000, 05:10	11.83

J-C8	0.1311	266.40	01Jan3000, 05:15	13.22
J-C9	0.0065	14.88	01Jan3000, 05:10	0.66
P1-100	0.0046	10.53	01Jan3000, 05:10	0.46
P1-101	0.0066	14.88	01Jan3000, 05:10	0.67
P1-102	0.0031	7.30	01Jan3000, 05:05	0.31
P1-103	0.0032	7.49	01Jan3000, 05:05	0.32
P1-105	0.0073	16.51	01Jan3000, 05:10	0.74
P1-67	0.0107	24.16	01Jan3000, 05:10	1.08
P1-68	0.0085	18.57	01Jan3000, 05:10	0.86
P1-69	0.0021	4.86	01Jan3000, 05:05	0.21
P1-70	0.0117	25.64	01Jan3000, 05:10	1.18
P1-71	0.0044	10.43	01Jan3000, 05:05	0.44
P1-72	0.0044	9.97	01Jan3000, 05:10	0.44
P1-73	0.0030	6.87	01Jan3000, 05:10	0.30
P1-74	0.0105	23.50	01Jan3000, 05:10	1.06
P1-75	0.0067	6.54	01Jan3000, 05:15	0.32
P1-76	0.0089	20.03	01Jan3000, 05:10	0.90
P1-77	0.0087	19.90	01Jan3000, 05:10	0.88
P1-78	0.0087	19.58	01Jan3000, 05:10	0.88
P1-79	0.0100	22.46	01Jan3000, 05:10	1.01
P1-80	0.0165	36.62	01Jan3000, 05:10	1.66
P1-81	0.0018	4.31	01Jan3000, 05:05	0.18
P1-82	0.0080	18.00	01Jan3000, 05:10	0.81
P1-83	0.0174	38.50	01Jan3000, 05:10	1.75
P1-84	0.0115	26.06	01Jan3000, 05:10	1.16
P1-85	0.0066	15.05	01Jan3000, 05:10	0.67
P1-86	0.0143	30.58	01Jan3000, 05:10	1.44
P1-87	0.0082	17.92	01Jan3000, 05:10	0.83
P1-88	0.0137	30.41	01Jan3000, 05:10	1.38
P1-89	0.0138	26.96	01Jan3000, 05:10	1.39
P1-90	0.0038	9.11	01Jan3000, 05:05	0.38
P1-91	0.0017	4.12	01Jan3000, 05:05	0.17

		<u>-</u>		
P1-92	0.0044	10.24	01Jan3000, 05:05	0.44
P1-93	0.0041	9.60	01Jan3000, 05:05	0.41
P1-94	0.0044	9.85	01Jan3000, 05:10	0.44
P1-95	0.0043	10.01	01Jan3000, 05:05	0.43
P1-96	0.0179	38.28	01Jan3000, 05:10	1.80
P1-97	0.0050	11.14	01Jan3000, 05:10	0.50
P1-98	0.0124	27.71	01Jan3000, 05:10	1.25
P1-99	0.0024	5.72	01Jan3000, 05:05	0.24
R-C-11	0.0087	19.89	01Jan3000, 05:10	0.88
R-JC1	0.0268	54.71	01Jan3000, 05:10	2.71
R-JC10	0.0365	76.14	01Jan3000, 05:10	3.68
R-JC12	0.0131	29.49	01Jan3000, 05:10	1.33
R-JC13	0.0172	38.63	01Jan3000, 05:10	1.75
R-JC15	0.0213	45.89	01Jan3000, 05:10	2.15
R-JC16	0.0300	64.39	01Jan3000, 05:10	3.03
R-JC19	0.0187	39.89	01Jan3000, 05:10	1.88
R-JC2	0.0341	70.98	01Jan3000, 05:10	3.44
R-JC20	0.0231	47.13	01Jan3000, 05:10	2.33
R-JC22	0.0104	22.94	01Jan3000, 05:15	1.05
R-JC23	0.0154	32.30	01Jan3000, 05:15	1.56
R-JC24	0.0184	37.14	01Jan3000, 05:15	1.87
R-JC27	0.0222	46.16	01Jan3000, 05:15	2.23
R-JC3	0.0523	110.89	01Jan3000, 05:10	5.28
R-JC4	0.0589	125.94	01Jan3000, 05:10	5.95
R-JC5	0.0954	200.03	01Jan3000, 05:10	9.62
R-JC6	0.1036	212.89	01Jan3000, 05:15	10.45
R-JC7	0.1173	240.28	01Jan3000, 05:15	11.83
R-JC8	0.1311	236.05	01Jan3000, 05:20	13.22
R-JC9	0.0065	14.85	01Jan3000, 05:10	0.66
R-P167	0.0107	23.35	01Jan3000, 05:10	1.08
R-P169	0.0021	4.83	01Jan3000, 05:10	0.21
R-P170	0.0117	25.57	01Jan3000, 05:10	1.18

Project: Pod1\_S\_curve Simulation Run: Pod1-10yr

Start of Run: 01Jan3000, 01:00 Basin Model: POD 1

End of Run: 02Jan3000, 01:55 Meteorologic Model: S-Pattern 1(1.53in)

Execution Time: 15Mar2006, 11:17:04 Control Specifications: Control 1

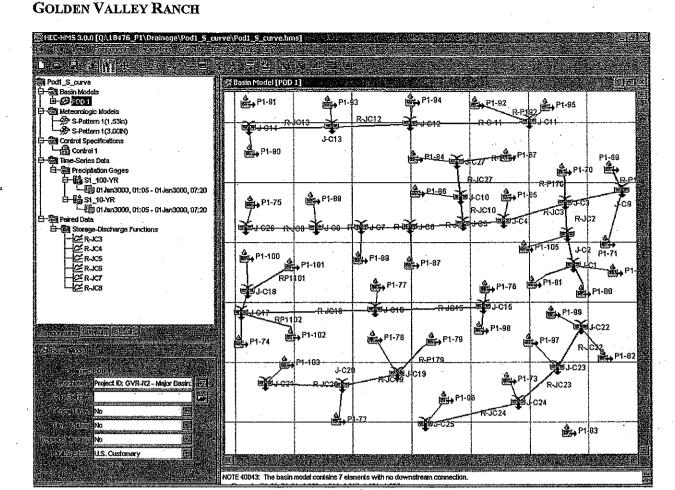
Volume Units: AC-FT

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (AC-FT)
J-C1	0.0268	20.66	01Jan3000, 05:15	0.94
J-C10	0.0365	27.56	01Jan3000, 05:15	1.27
J-C11	0.0087	7.45	01Jan3000, 05:10	0.30
J-C12	0.0131	10.89	01Jan3000, 05:10	0.46
J-C13	0.0172	14.15	01Jan3000, 05:10	0.60
J-C14	0.0210	17.15	01Jan3000, 05:10	0.74
J-C15	0.0213	17.58	01Jan3000, 05:10	0.74
J-C16	0.0300	23.39	01Jan3000, 05:10	1.04
J-C17	0.0548	42.48	01Jan3000, 05:10	1.91
J-C18	0.0112	9.11	01Jan3000, 05:10	0.39
J-C19	0.0187	15.28	01Jan3000, 05:10	0.65
J-C2	0.0341	25.08	01Jan3000, 05:15	1.19
J-C20	0.0231	17.44	01Jan3000, 05:15	0.80
J-C21	0.0263	19.28	01Jan3000, 05:15	0.91
J-C22	0.0104	8.72	01Jan3000, 05:10	0.36
J-C23	0.0154	11.68	01Jan3000, 05:15	0.54
J-C24	0.0184	12.18	01Jan3000, 05:20	0.64
J-C25	0.0363	23.28	01Jan3000, 05:15	1.26
J-C26	0.1378	90.05	01Jan3000, 05:20	4.63
J-C27	0.0222	17.81	01Jan3000, 05:10	0.77
J-C3	0.0523	37.66	01Jan3000, 05:15	1.83
J-C4	0.0589	42.59	01Jan3000, 05:10	2.06
J-C5	0.0954	69.83	01Jan3000, 05:15	3.33
J-C6	0.1036	76.88	01Jan3000, 05:15	3.62
J-C7	0.1173	86.58	01Jan3000, 05:15	4.10

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (AC-FT)
J-C8	0.1311	96.50	01Jan3000, 05:15	4.58
J-C9	0.0065	5.55	01Jan3000, 05:10	0.23
P1-100	0.0046	3.95	01Jan3000, 05:10	0.16
P1-101	0.0066	5.50	01Jan3000, 05:10	0.23
P1-102	0.0031	2.68	01Jan3000, 05:10	0.11
P1-103	0.0032	2.76	01Jan3000, 05:10	0.11
P1-105	0.0073	6.12	01Jan3000, 05:10	0.25
P1-67	0.0107	8.95	01Jan3000, 05:10	0.37
P1-68	0.0085	6.76	01Jan3000, 05:10	0.30
P1-69	0.0021	1.81	01Jan3000, 05:10	0.07
P1-70	0.0117	9.35	01Jan3000, 05:10	0.41
P1-71	0.0044	3.80	01Jan3000, 05:10	0.15
P1-72	0.0044	3.70	01Jan3000, 05:10	0.15
P1-73	0.0030	2.58	01Jan3000, 05:10	0.10
P1-74	0.0105	8.65	01Jan3000, 05:10	0.37
P1-75	0.0067	1.04	01Jan3000, 05:15	0.06
P1-76	0.0089	7.40	01Jan3000, 05:10	0.31
P1-77	0.0087	7.46	01Jan3000, 05:10	0.30
P1-78	0.0087	7.23	01Jan3000, 05:10	0.30
P1-79	0.0100	8.29	01Jan3000, 05:10	0.35
P1-80	0.0165	13.42	01Jan3000, 05:10	0.57
P1-81	0.0018	1.55	01Jan3000, 05:10	0.06
P1-82	0.0080	6.65	01Jan3000, 05:10	0.28
P1-83	0.0174	14.09	01Jan3000, 05:10	0.61
P1-84	0.0115	9.67	01Jan3000, 05:10	0.40
P1-85	0.0066	5.61	01Jan3000, 05:10	0.23
P1-86	0.0143	11.05	01Jan3000, 05:10	0.50
P1-87	0.0082	6.52	01Jan3000, 05:10	0.29
P1-88	0.0137	11.15	01Jan3000, 05:10	0.48
P1-89	0.0138	9.61	01Jan3000, 05:15	0.48
P1-90	0.0038	3.28	01Jan3000, 05:10	0.13
P1-91	0.0017	1.48	01Jan3000, 05:05	0.06

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (AC-FT)
P1-92	0.0044	3.80	01Jan3000, 05:10	0.15
P1-93	0.0041	3.54	01Jan3000, 05:10	0.14
P1-94	0.0044	3.62	01Jan3000, 05:10	0.15
P1-95	0.0043	3.71	01Jan3000, 05:10	0.15
P1-96	0.0179	13.84	01Jan3000, 05:10	0.62
P1-97	0.0050	4.09	01Jan3000, 05:10	0.17
P1-98	0.0124	10.19	01Jan3000, 05:10	0.43
P1-99	0.0024	2.07	01Jan3000, 05:10	0.08
R-C-11	0.0087	7.27	01Jan3000, 05:10	0.30
R-JC1	0.0268	20.24	01Jan3000, 05:15	0.94
R-JC10	0.0365	27.50	01Jan3000, 05:15	1.27
R-JC12	0.0131	10.61	01Jan3000, 05:10	0.46
R-JC13	0.0172	13.87	01Jan3000, 05:10	0.60
R-JC15	0.0213	16.46	01Jan3000, 05:15	0.74
R-JC16	0.0300	22.28	01Jan3000, 05:15	1.05
R-JC19	0.0187	14.53	01Jan3000, 05:15	0.65
R-JC2	0.0341	25.01	01Jan3000, 05:15	1.19
R-JC20	0.0231	17.35	01Jan3000, 05:15	0.80
R-JC22 0.0104 R-JC23 0.0154		8.26	01Jan3000, 05:15	0.36
R-JC23 0.0154		10.95	01Jan3000, 05:20	0.54
R-JC24	0.0184	12.12	01Jan3000, 05:20	0.64
R-JC27	0.0222	17.52	01Jan3000, 05:15	0.78
R-JC3	0.0523	38.03	01Jan3000, 05:15	1.83
R-JC4	0.0589	42.56	01Jan3000, 05:10	2.06
R-JC5	0.0954	71.17	01Jan3000, 05:15	3.33
R-JC6	0.1036	77.18	01Jan3000, 05:15	3.62
R-JC7	0.1173	86.89	01Jan3000, 05:15	4.10
R-JC8	0.1311	89.04	01Jan3000, 05:20	4.58
R-JC9	0.0065	5.46	01Jan3000, 05:10	0.23
R-P167	0.0107	8.46	01Jan3000, 05:15	0.37
R-P169	0.0021	1.75	01Jan3000, 05:10	0.07
R-P170	0.0117	9.30	01Jan3000, 05:10	0.41

# Case 09-14814-gwz Doc 1240-22 Entered 08/13/10 16:48:14 Page 40 of 65



# Case 09-14814-gwz Doc 1240-22 Entered 08/13/10 16:48:14 Page 41 of 65 Precipitation

Time	100-yr, 6-hr	.10-yr, 6-hr
01Jan3000, 01:05	0	0
01Jan3000, 01:20	0.024	0.012
01Jan3000, 01:35	0.048	0.024
01Jan3000, 01:50	0.075	0.038
01Jan3000, 02:05	0.099	0.05
01Jan3000, 02:20	0.123	0.063
01Jan3000, 02:35	0.15	0.077
01Jan3000, 02:50	0.174	0.089
01Jan3000, 03:05	0.198	0.101
01Jan3000, 03:20	0.222	0.113
01Jan3000, 03:35	0.261	0.133
01Jan3000, 03:50	0.297	0.151
01Jan3000, 04:05	0.354	0.181
01Jan3000, 04:20	0.414	0.211
01Jan3000, 04:35	0.648	0.33
01Jan3000, 04:50	1.131	0.577
01Jan3000, 05:05	2.502	1.276
01Jan3000, 05:20	2.733	1.394
01Jan3000, 05:35	<b>2.793</b> .	1.424
01Jan3000, 05:50	2.85	1.454
01Jan3000, 06:05	2.886	1.472
01Jan3000, 06:20	2.916	1.487
01Jan3000, 06:35	2.949	1.504
01Jan3000, 06:50	2.973	1.516
01Jan3000, 07:05	3	1.53

U	4N					Project	0					Calcu	Job No.: c Date: Calculated by: C						<b>√</b>		A	
Stanley Consultants INC	onsultan	<b>5</b>	g 3			Modified STANDARD FORM		om the Clar	k County	≷egional I	Rood Contin	ol District's	Hydrologk	4 from the Clark County Regional Flood Control Districts Hydrologic Criteris and Drainage Design Manuel	Drainage D	esign Man	len		Sta		Signal Signal	Stanley Consultants INC
ributon 5820 S, Eastern Ave. Sulte 200 Las Vegas, Nevada 89119 702.369.9396	Ave. Sulte 200 da 89119	i !	i																6820 { Las Ve 702,36	S, Easten gas, Nev 9.9396	5820 S. Eastern Ave. Suite 200 Las Vegas, Nevada 89119 702,369,9396	te 200 9
	SCS Curve Numbers	bers					***************************************										Tel	To Chack	or local	F	TS TOTAL	Till Democke
	Curve Numbers	2			T	1000			e la company	mar Overland	h a							(executed )		1	_	_
Drainage Area		ž	Curve # for Hydrologic Solls Group	for Solls	Composite	Designation	(Default by CN)	Area (Acres)	Length (feet)	<u></u>	(Min) F	Length (feet)			V2 (FPS) (Manning)	Tt (Mh)	Total Length (feet)	Tc= (L/180)+10 (Min)		(Tc*0.8)	Composite	
(Sq. MI.) Cover Type and Hi	Cover Type and Hydrologic Condition	۲	-	٥	징 교	(1) (2) (2) (2) (3) (4) (5) (5) (6) (6) (7) (7)	(2) I	6	<del>(</del>	6	(9)	0	(8)	(6)	(10)	(1)	(12)	(13)	3	\$	S	Tc>=5 for Urban
0 0107 7.000 +/- res	7.000 +/- resudebtuck kits	78	ā	89 81	1	67	0.78	6.82	18	8	6.47	887	20.0	0.17	0.25	75.79	1017	15.7	15,7	9.6	89 0.0107	107
	7,000 +/- resudebtusk kits	12	2	. 1	╄	89	0.78	5.44	120	1.00	7.40	1232	0.01	0.17	0.28	58.54	1402	17.8	17,8	10.7	1	0.0085
	7,000 +/- resudebtuak kits	76	84	88		69	0.78	1,33	130	1.00	6.47	468	10.0	0.21	0,31	37.74	598	13,3	13.3	0.0	_	0.0021
	7,000 +/- resudebtuak kits	76	20		_	70	0.78	7.47	130	9	6.47	1240	10.0	0.20	0.30	82.56	1370	17.6	17.8	10.6		0.0117
	7,000 +/- resudebtuak kits	2	2	99		74	0.78	2.78	160	8	7.18	318	0.01	0.21	0.32	25.01	478	12.7	12.7	9. 5	D:0	0.0044
1	7,000 +/- resudebtuak kits	76	Z 3	8 8	8 8	72	0.78	2.83	<del>1</del> 5	8 8	6.73	817	0.0	2 0	0.29	47.09	88	13.8	13.8	8.3		0.0030
	7,000 Tr resudenman Rits	9 9	5 3	8 8	-	2 7	0.75	27.8	Ş	3 5	40.45	1038	200	200	0.00	71.18	1158	16.4	184	6.6	┸.	0.0105
0.0067 Open space	Open space/parks - good	8 8	. E	74 89		75	0.59	4.28	1	8	0,00	2240	10.0	0.23	0.34	121,23	2240	22,4	22.4	13.5	-	0.0067
	7,000 +/- resudebtuak kits	78	28			78	0.78	5.71	160	1.00	7.18	925	10.0	0.15	0,22	88.49	1085	16.0	16.0	9.6	ш	6900'0
	7,000 +/- resudebtuak kits	7.6	84		11	77	0.78	5,55	120	1.00	6.22	602	0.01	0.21	0.32	44.71	722	14.0	14.0	2	_1	0.0087
	7,000 +/- resudebtuak kits	76	84	69 91	_	78	0,78	5,58	150	1.00	6,95	941	0.01	0.16	0.24	84,61	10g	18	16.1	88	89 0.0087	280
	7,000 +/- resudebtuak kits	76	84		_	62	0.78	6,43	5	90,	5.95	990	10.0	0.18	0.28	74.20	199	Ę.	16.	2,5	л.	0.0100
0.0185 7,000 +/- res	7,000 +/- resudebtuek kits	78	Z	89		80	0,78	10.56	52	8	6.22	4	ë	92.0	0.28	8 3	1284	2	17.0	102	88	0.0165
0.0018 7,000 +/- res	7,000 +/- resudebtusk kits	92	2	89 91		81	0.78	1.18	28	8	6.47	286	P.0	0.24	0.36	20.21	416	12.3	123	╬		0.0018
	7,000 +/- resudebtuak kits	۶	ᇗ	88 88		82 ·	0.78	5.13	<u>8</u>	9	6,47	862	9,04	623	0.35	58.81	1082	92				0.0080
	7,000 +/- resudebtuak kits	æ [	ड	80		83	0.78	1.15	ទី	8 8	5.67	1186	20.0	9 5	027	89.75	1286 P.F.B	17.1	5 4	200	8 68	0.0174
	7,000 +/- resudebtask kits	9 6	<b>5</b>  3	16 S	# S	*	970	3 2	2 5	3 5	650	200	5	2	200	67 70	846	14.7	14.7	8.8		0,0066
ŀ	7,000 the resudebturak kits	2 8	8 8	5   5 8   8		9	0.78	9.13	13	8	1 5	1474	ρã	023	0.32	88.86	1804	18.9	18,9	11.3	.0.0	0.0143
0.0092 7.000 t	7 DOD +/- resudebitusk kits	7.9	2	88	-	87	0.78	5.25	120	1.00	8.22	1294	0.01	0.21	0.32	80.95	1414	17.9	17,9	-	_	0.0082
L	7,000 +/- resudebtuak kits	78	22	88	-	98	0.78	8.76	120	1.00	6.22	1147	10.0	0.19	0.29	81.82	1267	17.0	17.0	$\dashv$		0.0137
	7,000 +/- resudebtuak kits	78	茲	89	1 89	88	0.78	8.80	130	1.00	6.47	2026	0.01	0.21	0.32	119,90	2156	22.0	22.0	+	_	0,0138
L	7,000 +/- resudebtuak kits	76	2	99 91	1 89	0.6	0.78	2.41	140	1.00	6.71	280	0.01	0.21	0.31	23.53	430	12.4	12.4	7.4	89 0.0	0.0038
	7,000 +/- resudebtuak kits	78	客	89 91	1 89	91	0.78	1.09	120	1.00	6.22	231	0.02	0.27	0.41	14.13	351	12.0	12.0	+	_	0.0017
	7,000 +/- resudebtuak kits	78	84	89 91	1 88	82	0.78	2.81	140	1.00	6.71	436	0,01	0.17	0.28	42.88	929	13.2	13.2	+	_	044
0.0041 7,000 +/- res	7,000 +/- resudebtuak kits	76	4	89 91	1 89	66	0.78	2.65	55	1.00	6.47	400	0.01	0,15	0.23	44.50	230	12.9	12.9	+		0.0041
0.0044 7,000 +/- res	7,000 +/- resudebtuak kits	78	94	69		94	0.78	2.81	130	8	622	1054	9.03	0.15	0.23	96.29	4174	22	2	+	D'0	D.UU44
0.0043 7,000 +/- res	7,000 +/- resudebtuak kits	76	ğ		1 89	96	0.78	2,73	\$	8	6.47	430	9	9.48	0.27	40.50	200	-		╁		0,0043
0.0179 7,000 +/- res	7,000 +/- resudebtuak kits	76	2			96	0.78	11.45	\$	1.00	6,71	1459	9	0.23	938	82.80	1599				4	0.000
	7,000 +/- resudebtuak kits	76	ձ	1		46	0.78	3.22	8	1:00	6.47	163	δ	020	0.31	73.21	1233	g	2 3	+		0,000
0.0124 7,000 +/- ras	7,000 +/- resudebtuak kits	78	2	8 9		96	0.78	7.96	8	8	7.18	100	200	986	690	31.62	1214			+	f	777
	7,000 +/- resudebtuak kits	78	2	_	88	88	0.78	200	<u>§</u>	9.0	6.95	304	20	87	2	8 2		277		:	3 8	0.0040
						447	, P. C	900	ç	5			3	-	6			·	7	_		

P1-67 6.8508
P1-66 1.328
P1-70 7.4438
P1-72 2.8388
P1-73 2.8388
P1-73 2.8388
P1-73 6.723
P1-73 6.723
P1-73 6.7244
P1-73 6.723
P1-73 6.724
P1-73 6.724
P1-73 6.724
P1-73 6.724
P1-74 6.728
P1-89 11.453
P1-89 11.453
P1-89 11.480
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18449 - PÓD 1 HEC-HMS DATA RESULTS C:\temp\2QQ61903\18476P15\dPom4.xls

			SCS Curve Numbers	ers			***************************************			*****					-	To Check				1	
			Curve Numbers	1		Basin Data		Initial/O	Initial/Overland Time (TI)	Ī		Jan Jan	Travel Time (Tt)		₹	(Urbanized Basins)	) Final Tc	Te	+	HECHINA	Kemarks
		•							- day of the same	- Territorial and American	**************************************	-	-	+					С		
				Con 3					••••••						ĕ	10 10		_	опу	Drainage	
	Drainage	Drainage		Hydrologic Solls so		(Default by	Area				Length Si	**********			Length	th (L/180)+10	14 T - 01-	77 (70°0.6)	osite õ	Area (So. Mi.)	Tc>=10 for Non Urban
Basin	Area	Area		2 2	088	ŝ	(Acres)	Ť	t	†	<u>.</u>	7	7	-i	J						Teses for I liban
Name	(Acres)	(S ⊠	Cover Type and Hydrologic Condition	A B C D CN	3	(2)	3	€	9	9	-		+	+	4	-	+	╁	╈	18	200 010
l-	4.2020	0.0068	7,000 +/- resudebtuak kits	76 84 89 91 89	101	0.78	4.20	130	1.00	6.47	919 0	0,01	0.18	77	71.41 1049	+	+	+	†	0,0006	
L	2.01	0.0031	7,000 +/- resudebtuak kits	76 64 89 91 89	102	0,78	2.01	140	1.00	8,71	358	0.01	0.23	0.35 25	25.84 496	$\dashv$	$\dashv$	-	┪	0.0031	
P1- 103	2,07	0.0032	7,000 +/- resudebtuak kits	76 84 89 91 89	103	0.78	2.07	140	1.00	6.71	412 0	10.0	0.22	0,34	30.88 552	13.1	+	+	Ť	0.0032	
91- 105	4.67	0.0073	7.000 +/- resudebluak kits	76 84 89 91 69	105	0.78	4.67	130	1.00	6.47	863	0.01	0.17	0.26	72.69 993	16.8	16.5	5.93	8	0.0073	
		0,2953		_	o									_				4	-	0.2953	
						K = 0.0132*Cn-0.39		71=1.8"(1	1.1-K)*L^(1.	TI= 1.8*(1.1-K)*L^(1/2)/(S^(1/3))		neralized f	Generalized Manning's Equations	uations					-		
Yotes:		•	Open space - poor	68 79 86 89								<u>a</u>	Existing Conditions	<b>2</b>	Develo	Developed Conditions	•				
			Open space - fair	48 69 79 84											:						
			Open space/parks - good	39 61 74 80								\$	$V1 = 14.8"(S/100)^{0.5}$	3,0,5	V1#2	V1 = 20.2*(S/100)^0.5	ю				
	_	,==-,	Paved (excludes right-of-way)	98 98 98 98										;	3	440000000000000000000000000000000000000					
			Paved: curbs and storm drains	88 88 86 86								\$	V2 = 29.4*(S/160)^0.5	70.5	£ 50	VZ = 30.6°(SATUV)*0.0					
-		-	Paved: open ditches (includes R/W)	83 89 92 93																	
		_	Gravel (includes RW)	76 85 89 91																	
		_	Dirt (includes R/W)	72 62 87 89											٠.						
		J	Commercial & Business	85 85																	
		-	Industrial	81 88 91 93											٠						•
		•	Apartments/Condos	81 88 91 93												•					
			Townhouses/<≈ 6000 sq. ft.	80 87 90 92						~											
			7000 sq. ft. lots	76 84 89 91																	
			8000 sq. ft. lots	73 62 68 90																	
		•-	10,000 sq. ft. lots	61 75 83 87														•			
		•-	14,000 sq. ft. lots	72 81																	
	_	••	20,000 sq, ft. lots	20																	
			40,000 sq. ft. lots	51 68 79 84																	
	-	•	- T-																		

HEC-HMS DATA RESULTS C:\temp\20061603\18476P1StdForm4.x

### Shed Parameters - Pod 1

DEVELOPED CON	IDITIONS				
Drainage Shed	Area (ac)	Elev dn	Elev up	Length (ft)	Slope
P1-67	6.82056208	2528.9	2522.9	887	0.6764%
P1- 68	5.43982051	2525.4	2516.7	1232	0.7062%
P1- 69	1.33282528	2525.3	2520.4	468	1.0470%
P1-70	7.47393562	2525.4	2513.3	1240	0.9758%
P1- 71	2.78410071	2520.9	2517.4	318	1.1006%
P1- 72	2.82990899	2503.1	2497.6	817	0.6732%
P1-73	1.94640098	2497.6	2492.4	569	0.9139%
P1- 74	6.72332983	2498.9	2488.7	1038	0.9827%
P1- 75	4.28184465	2517.4	2489.2	2240	1.2589%
P1-76	5.70996719	2502.2	2497.3	925	0.5297%
P1-77	5.54738366	2499.8	2493.2	602	1.0963%
P1- 78	5.57736688	2509.5	2503.9	941	0.5951%
P1- 79	6.42571205	2512.2	2503.9	990	0.8384%
P1- 80	10.5553556	2530.2	2520.8	1144	0.8217%
P1- 81	1.17969603	2518.9	2515	286	1.3636%
P1- 82	5.12524784	2518.9	2506.1	952	1.3445%
P1- 83	11.151259	2519.5	2510.4	1186	0.7673%
P1- 84	7.38699887	2524.7	2517.8	821	0.8404%
P1- 85	4.23359978	2518.1	2510.9	726	0.9917%
P1-86	9.13315676	2524.1	2507.5	1474	1.1262%
P1-87	5.24655358	2519.5	2505.4	1294	1.0896%
P1-88	8.75517188	2512.4	2502.4	1147	0.8718%
P1-89	8.803328	2518.7	2496.9	2026	1.0760%
P1-90	2.41032003	2502.3	2499.3	290	1.0345%
P1-91	1.08501801	2514.2	2510	231	1.8182%
P1-92	2.80949645	2508.4	2505.3	436	0.7110%
P1-93	2.64865483	2502.7	2500.5	400	0.5500%
P1-94	2.81184315	2503.1	2497.3	1054	0.5503%
P1-95	2.72709787	2506.4	2503.1	430	0.7674%
P1- 96	11.4479667	2508.2	2489.6	1459	1.2748%
P1- 97	3.21621621	2508.9	2497.6	1103	1.0245%
P1-98	7.95973724		2497.3	1054	5.1044%
P1- 99	1.53009463	2513.9	2507.9	304	1.9737%
P1- 100	2.96143496	1	2488.7	550	1.1091%
P1- 101	4.20201393	2498.1	2490.7	919	0.8052%
P1- 102	2.01486774		2491.1	356	1.2921%
P1- 103	2.06835346	1	2490.6	412	1.2136%
P1- 105	4.66530826		2513	863	0.7068%

Kinematic Ro	outing						
			Manning				Side Slope
Reach	Length (ft)	slope	"n"	Sub reaches	Shape	Width	(xH:V)
R-C-11	250	0.007	0.016	5	Trapezoid	60	0.5
R-JC1	530	0.01	0.016	5	Trapezoid	20	0.5
R-JC10	50	0.01	0.016	5	Trapezoid	20	0.5
R-JC12	170	0.007	0.016	5	Trapezoid	60	0.5
R-JC13	150	0.007	0.016	5	Trapezoid	60	0.5
R-JC15	820	0.007	0.016	5	Trapezoid	60	0.5
R-JC16	330	0.007	0.016	5	Trapezoid	60	0.5
R-JC19	830	0.007	0.016	5	Trapezoid	60	0.5
R-JC2	50	0.01	0.016	5	Trapezoid	20	0.5
R-JC20	680	0.0109	0.016	5	Trapezoid	60	0.5
R-JC22	1000	0.01	0.025	5	Trapezoid	100	. 0
R-JC23	550	0.008	0.016	5	Trapezoid	60	0.5
R-JC24	390	0.009	0.016	5	Trapezoid	60	0.5
R-JC27	1130	0.007	0.016	5	Trapezoid	60	0.5
R-JC9	200	0.01	0.023	5	Trapezoid	20	0.5
RP1101	400	0.007	0.016	5	Trapezoid	60	0.5
RP1102	380	0.007	0.016	5	Trapezoid	60	0.5
R-P167	650	0.005	0.016	5	Trapezoid	60	0.5
R-P169	330	0.01	0.025	5	Trapezoid	50	0.5
R-P170	× <b>50</b>	0.01	0.016	5 5	Trapezoid	20	0.5
R-P179	200	0.007	0.016	5	Trapezoid	60	0.5
R-P180	1140	0.007	0.016	- 5	Trapezoid	60	0.5
R-P181	730	0.007	0.016	5	Trapezoid	60	0.5
R-P192	250	0.007	0.016	5	Trapezoid	60	0.5

# Modified Puls Routing Paired Data

Reach	Table*
R-JC3	R-JC3
R-JC4	R-JC4
R-JC5	R-JC5
R-JC6	R-JC6
R-JC7	R-JC7
R-JC8	R-JC8

<sup>\*</sup> See OpenSpace\_upper-Mod Puls worksheet for data

	F-JC8		R-J7	R-J6	R-J5	R-J4	R-J3
Flow	sta450-0	Élow	sta250-0	sta600-250	sta900-600	sta1200-900	1350-1200
(cfs)	Storage (ac-ft)	(cfs)	Storage (ac-ft)				
25	0.0851	25	0.0360	0.0547	0.0509	0.0008	0.0259
50	0.1633	50	0.0603	0.0897	0.0867	0.0014	0.0437
75	0.2662	75	0.0817	0.1219	0.1177	0.0019	0.0592
100	0.4082	100	0.1013	0.1520	0.1422	0.0025	0.0733
125	0.5713	125	0.1199	0.1804	0.1721	0.0030	0.0861
150	0.7372	150	0.1378	0.2073	0.1958	0.0034	0.0978
200	1.1608	175	0.1546	0.2336	0.2182	0.0039	0.1088
250	1.6430	200	0.1712	0.2704	0.2402	0.0043	0.1195
300	2.2029	250	0.2020	0.3228	0.2825	0.0051	0.1392



# POINT PRECIPITATION FREQUENCY ESTIMATES FROM NOAA ATLAS 14



Arizona 35.14 N 114.18 W 2703 feet

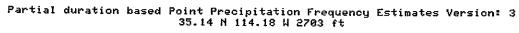
from "Precipitation-Frequency Atlas of the United States" NOAA Atlas 14, Volume 1, Version 3 G.M. Bonnin, D. Todd, B. Lin, T. Parzybok, M.Yekta, and D. Riley NOAA, National Weather Service, Silver Spring, Maryland, 2003

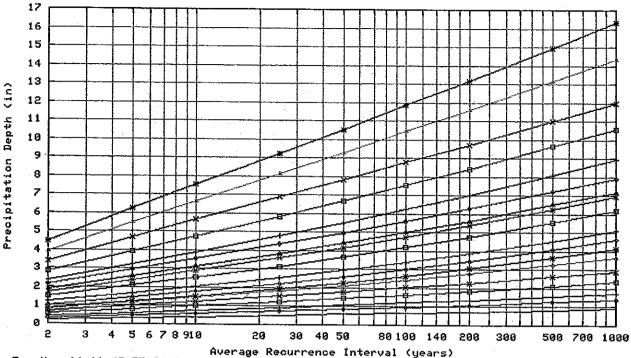
Extracte		

Cor	ifiden	ce Lir	nits	数据	Seaso	onality		Loc	ation	Vlaps		Othe	Info.		GIS da	lta	Maps	Help
					Prec	ipita	tion ]	Frequ	iency	Esti	mate	es (in	ches)				•	
ARI* (years)	5 min	10 min	15 min	30 min	60 min	120 min	3 hr	6 hr	12 hr	24 hr	48 hr	4 day	7 day	10 day	20 day	30 day	45 day	60 day
2	0.23	0.35	0.43	0.58	0.72	0.82	0.89	1.04	1.22	1.51	1.75	1.91	2.18	2.36	2.87	3.40	3.95	4.46
5	0.33	0.50	0.62	0.83	1.03	1.17	1.25	1.44	1.68	2.08	2.40	2.60	2.96	3.23	3.96	4.69	5.51	6.24
10	0.40	0.61	0.75	1.01	1.25	1.44	1.53	1.76	2.05	2.53	2.90	3.13	3.55	3.90	4.77	5.64	6.64	7.53
25	0.49	0.75	0.93	1.26	1.55	1.82	1.95	2.22	2.56	3.15	3.61	3.85	4.36	4.81	5.85	6.89	8.14	9.25
50	0.57	0.86	1.07	1.44	1.78	2.12	2.29	2.59	2.97	3.66	4.17	4.42	4.98	5.53	6.70	7.83	9.29	10.54
100	0.65	0.98	1.22	1.64	2.03	2.44	2.67	3.00	3.42	4.19	4.76	5.01	5.62	6.26	7.56	8.78	10.45	11.86
200	0.73	1.10	1.37	1.84	2.28	2.79	3.07	3.44	3.88	4.75	5.39	5.64	6.29	7.03	8.44	9.73	11.62	13.19
500	0.84	1.27	1.58	2.12	2.63	3.27	3.67	4.08	4.55	5.55	6.26	6.50	7.21	8.12	9.64	10.99	13.18	14.96
1000	0.93	1.41	1.75	2.36	2.92	3.68	4.17	4.62	5.10	6.20	6.97	7.19	7.95	8.98	10.56	11.95	14.37	16.33

Text version of table

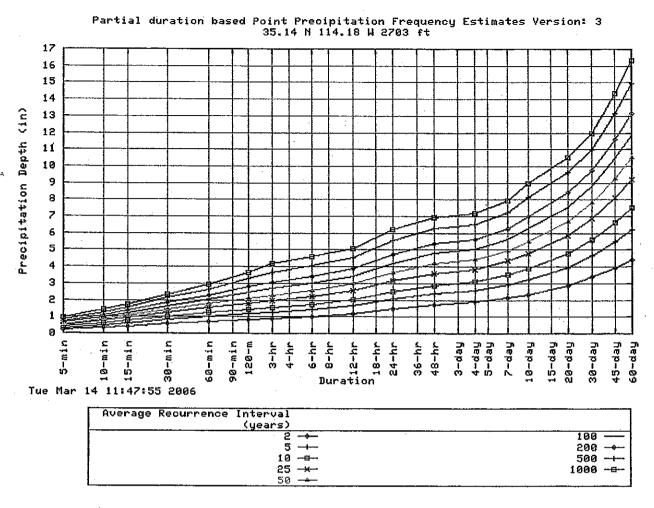
\* These precipitation frequency estimates are based on a <u>partial duration series</u>. ARI is the Average Recurrence Interval. Please refer to the <u>documentation</u> for more information. NOTE: Formatting forces estimates near zero to appear as zero.





Tue Mar 14 11:47:55 2006

Duration		<u> </u>	····
5-min	120-m	48-hr → <del>(</del> -	30-day <del>-×-</del>
10-min <del></del>	3-hr <del>-*-</del>	4~day <del>-</del>	45-day ——
15-min <del></del>	6-hr →	7-dau <del></del>	60-day <del>-*-</del>
30-min <del></del>	12-hr <del></del>	10-day <del></del>	
60-min <del>-×</del> -	24-hr <del>-=</del> -	20-day <del>-⊡-</del>	



### **Confidence Limits -**

				*							nfide imat							
ARI** (years)		10 min	15 min	30 min	60 min	120 min	3 hr	6 hr	12 hr	24 hr	48 hr	4 day	7 day	10 day	20 day	30 day	45 day	60 day
2	0.27	0.42	0.52	0.70	0.86	1.00	1.06	1.23	1.40	1.72	1.97	2.15	2.46	2.65	3.22	3.83	4.49	5.12
5	0.39	0.60	0.74	0.99	1.23	1.42	1.48	1.69	1.93	2.36	2.70	2.92	3.33	3.62	4.43	5.29	6.26	7.16
10	0.48	0.73	0.90	1.21	1.50	1.75	1.83	2.07	2.35	2.86	3.27	3.52	4.00	4.37	5.34	6.35	7.56	8.65
25	0.59	0.90	1.11	1.50	1.85	2.20	2.31	2.60	2.94	3.57	4.07	4.33	4.90	5.40	6.57	7.75	9.28	10.64
50	0.68	1.03	1.28	1.72	2.13	2.58	2.72	3.05	3.43	4.15	4.72	4.98	5.61	6.21	7.53	8.84	10.61	12.13
100	0.77	1.18	1.46	1.96	2.43	2.98	3.18	3.57	3.98	4.79	5.41	5.68	6.36	7.08	8.54	9.96	11.97	13.71
200	0.87	1.33	1.65	2.22	2.75	3.42	3.73	4.13	4.58	5.46	6.15	6.43	7.17	8.01	9.57	11.09	13.36	15.33
500	1.02	1.56	1.93	2.60	3.22	4.09	4.53	4.99	5.52	6.46	7.22	7.49	8.30	9.33	10.99	12.61	15.24	17.51
1000	1.15	1.75	2.17	2.93	3.62	4.67	5.22	5.73	6.32	7.30	8.10	8.35	9.21	10.40	12.13	13.82	16.75	19.23

<sup>\*</sup>The upper bound of the confidence interval at 90% confidence level is the value which 5% of the simulated quantile values for a given frequency are greater than.

<sup>\*\*</sup> These precipitation frequency estimates are based on a <u>partial duration series</u>. ARI is the Average Recurrence Interval.

Please refer to the <u>documentation</u> for more information. NOTE: Formatting prevents estimates near zero to appear as zero.

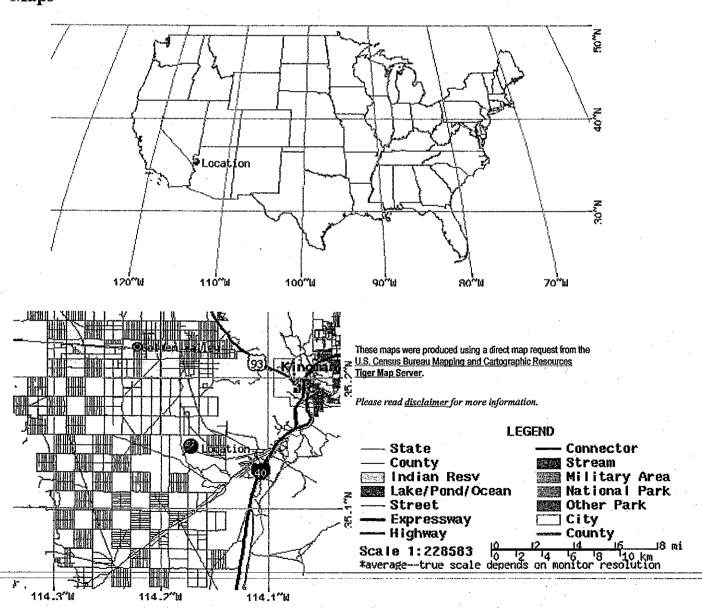
<sup>\*</sup> Lower bound of the 90% confidence interval
Precipitation Frequency Estimates (inches)

ARI**		10	15	30	60	120	3	6	12	24	48	4	7	10	20	30	45	60
(years)	min	min	min	min	min	min	hr	hr	hr	hr	hr	day	day	day	day	day	day	day
2	0.19	0.29	0.36	0.49	0.60	0.69	0.76	0.91	1.06	1.34	1.55	1.71	1.95	2.10	2.56	3.01	3.45	3.87
5	0.28	0.42	0.52	0.70	0.87	0.98	1.06	1.25	1.45	1.84	2.12	2.31	2.64	2.87	3.52	4.15	4.80	5.40
10	0.33	0.51	0.63	0.85	1.05	1.19	1.29	1.51	1.77	2.23	2.56	2.79	3.16	3.46	4.22	4.98	5.78	6.50
25	0.41	0.62	0.78	1.04	1.29	1.47	1.60	1.86	2.16	2.74	3.16	3.40	3.85	4.25	5.14	6.07	7.05	7.96
50	0.46	0.70	0.87	1.18	1.46	1.70	1.86	2.13	2.46	3.14	3.62	3.88	4.37	4.85	5.86	6.85	7.99	9.02
100	0.52	0.79	0.98	1.32	1.63	1.92	2.12	2.41	2.77	3.55	4.10	4.37	4.91	5.46	6.58	7.64	8.92	10.07
200	0.57	0.87	1.08	1.46	1.80	2.14	2.37	2.70	3.08	3.96	4.58	4.86	5.43	6.07	7.29	8.41	9.86	11.13
500	0.65	0.98	1.22	1.64	2.03	2.46	2.74	3.08	3.48	4.52	5.25	5.52	6.14	6.91	8.23	9.40	11.06	12.46
1000	0.70	1.06	1.32	1.78	2.20	2.68	3.03	3.38	3.80	4.94	5.76	6.03	6.69	7.57	8.92	10.12	11.96	13.46

<sup>\*</sup> The lower bound of the confidence interval at 90% confidence level is the value which 5% of the simulated quantile values for a given frequency are less than.

Please refer to the documentation for more information. NOTE: Formatting prevents estimates near zero to appear as zero.

### Maps -



<sup>\*\*</sup> These precipitation frequency estimates are based on a partial duration maxima series. ARI is the Average Recurrence Interval.

#### Other Maps/Photographs -

<u>View USGS digital orthophoto quadrangle (DOQ)</u> covering this location from TerraServer; USGS Aerial Photograph may also be available

from this site. A DOQ is a computer-generated image of an aerial photograph in which image displacement caused by terrain relief and camera tilts has been removed. It combines the image characteristics of a photograph with the geometric qualities of a map. Visit the National Digital Orthophoto Program (NDOP) for more information.

#### Watershed/Stream Flow Information -

Find the Watershed for this location using the U.S. Environmental Protection Agency's site.

#### Climate Data Sources -

Precipitation frequency results are based on data from a variety of sources, but largely NCDC. The following links provide general information

about observing sites in the area, regardless of if their data was used in this study. For detailed information about the stations used in this study,

please refer to our documentation.

Using the National Climatic Data Center's (NCDC) station search engine, locate other climate stations within:

#/-30 minutes ...OR... #/-1 degree of this location (35.14/-114.18). Digital ASCII data can be obtained directly from NCDC.

Find <u>Natural Resources Conservation Service (NRCS)</u> SNOTEL (SNOwpack TELemetry) stations by visiting the <u>Western Regional Climate Center's state-specific SNOTEL station maps</u>.

Hydrometeorological Design Studies Center DOC/NOAA/National Weather Service 1325 East-West Highway Silver Spring, MD 20910

(301) 713-1669

Questions?: HDSC.Questions@noaa.gov

**Disclaimer** 

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GOLDEN VALLEY RANCH

# **APPENDIX A**

# **AREA 3 - RESULTS AND DATA**

- HEC-HMS 100-YR, 6-HR SIMULATION
- HEC-HMS 10-YR, 6-HR SIMULATION
- NOAA ATLAS 14 PRECIPITATION
- STANDARD FORM 4

Project: Pod3\_S-curve Simulation Run: Pod3 100-yr

Start of Run: 01Jan3000, 01:00

Basin Model:

Pod 3

End of Run:

02Jan3000, 01:55

Meteorologic Model:

S-Pattern 1(3.00in)

Execution Time: 15Mar2006, 10:34:21

Control Specifications: Control 1

Volume Units:

AC-FT

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (AC-FT)
J-S5	0.1092	187.25	01Jan3000, 05:15	10.27
P3-43	0.0393	60.15	01Jan3000, 05:10	2.88
P3-44	0.0281	37.59	01Jan3000, 05:15	2.06
P3-45	0.0025	4.59	01Jan3000, 05:05	0.18
P3-50	0.0303	59.14	01Jan3000, 05:15	3.20
P3-60	0.0396	70.55	01Jan3000, 05:15	4.18

Project: Pod3\_S-curve Simulation Run: Pod3 10yr

Start of Run: 01Jan3000, 01:00 Basin Model: Pod 3

End of Run: 02Jan3000, 01:55 Meteorologic Model: S-Pattern 1(1.53in)

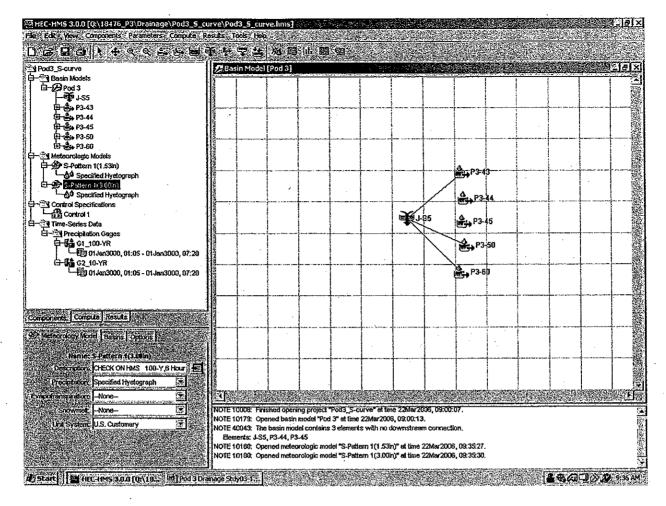
Execution Time: 15Mar2006, 10:34:47 Control Specifications: Control 1

Volume Units: AC-FT

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (AC-FT)
J-S5	0.1092	64.13	01Jan3000, 05:15	3,40
P3-43	0.0393	15.90	01Jan3000, 05:15	0.76
P3-44	0.0281	9.68	01Jan3000, 05:15	0.54
P3-45	0.0025	1.28	01Jan3000, 05:10	0.05
P3-50	0.0303	22.34	01Jan3000, 05:15	1.14
P3-60	0.0396	25.89	01Jan3000, 05:15	1.49

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#### GOLDEN VALLEY RANCH



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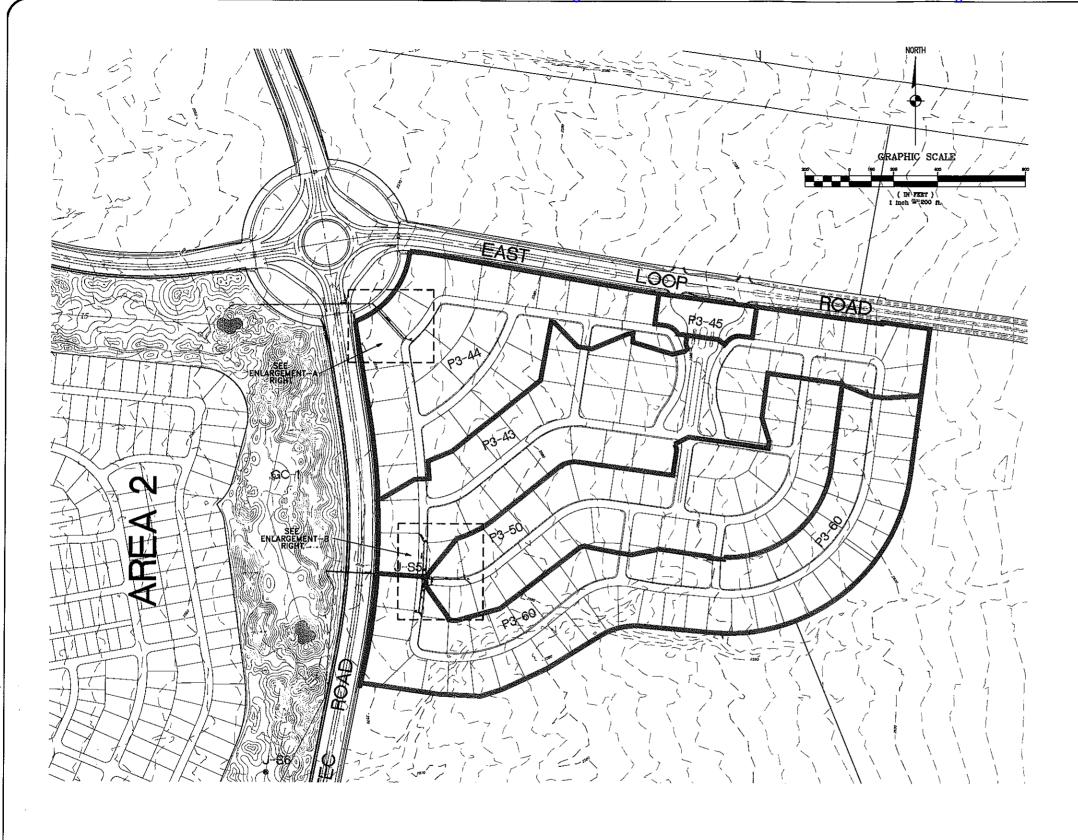
Precipitation

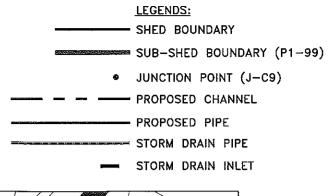
100-yr, 6-hr	10-yr, 6-hr
0	0
0.024	0.012
0.048	0.024
0.075	0.038
0.099	0.05
0.123	0.063
0.15	0.077
0.174	0.089
0.198	0.101
0.222	0.113
0.261	0.133
0.297	0.151
0.354	0.181
0.414	0.211
0.648	0.33
1.131	0.577
2.502	1.276
2.733	1.394
2.793	1.424
2.85	1.454
2.886	1.472
2.916	1.487
2.949	1.504
2.973	1.516
3	1.53
	0 0.024 0.048 0.075 0.099 0.123 0.15 0.174 0.198 0.222 0.261 0.297 0.354 0.414 0.648 1.131 2.502 2.733 2.793 2.85 2.866 2.916 2.949 2.973

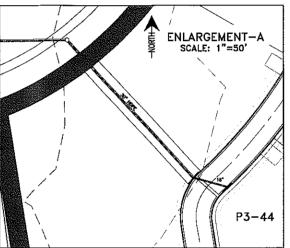
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			Stanley Consultants INC	इं	Ä				Modified STANDARD FORM 4 from the Clark County Regional Flood Control District's Hydrologic Criteria and Drainage Design Manual	FORM 4 from	1 the Clark	County R	egional Floc	d Control	District's A	tydrologic	Criteria and	Drainage 🗓	nesign Menu	<u> 6</u>	X	ള	5	Surc	Stanley Consultants INC.
6-Hour Design Slorm Distribution	Slorm Disirit	pullon	5820 S Eastern Ave. Suite 200	. c																	5820	S. East	em Ave	Suite 20	0
		-	Las Vegas, Nevada 89119 702,369,936	,											;	-					Las 702.3	Las Vegas, Ne 702,369,8396	Vevada	Las Vegas, Nevada 89119 702,369,8398	
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	_		Curve Numbers						e-du&	Sub-Basin Data		Initial/Ov	Initial/Overland Time (TI)	E		Ţ	Travel Time (T)			(Urbanized Basins)	s) Final Tc	Tc TLAG	-	HEGINPUT	Remarks
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Drainage Dr Besin	Drainage Dre	Drainage		•	Curve #	e # for Hydro	Curve # for Hydrologic Soils Group	nposite	Desknation	(Default by	Area (Acres)	Length S	Slope	Ti (Min)	Length Sk	Slope V1	V1 (FPS) VZ (Mannino) (M	V2 (FPS) (Manning) T	T (Min)	Length (L/180)+10 (feet) (Min)	10 (Mis.	Ę Fe	posite	Area (Sq. MI.)	Tc>=10 for Non Urban
	_	/Ser Mily Thi 6/2 Dezaudranh No	Court Turs and Hudrolpale Condition	i	-		֓֞֜֜֜֜֜֜֓֓֓֓֓֓֓֓֓֓֓֓֓֟֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֡֓֓֡֓֡֓֡֓֡֓֡֓֡֓֡֓֡֡֡֡֡֓֡֓	, <del>Z</del>									69	(10)		(12) (13)	€	(Min)	Š		Tc>=5 for Urban
18	_	1	⊨	H	L	L	L		EXISTING CONDITIONS	SNC	1	- 	L		┝	F	H	-		H	Н				
23.43	_	0.0393	12,000 +/- resudeblusk kits	f	58 73,6	١	82 88.5	8	82 P3-43	29'0	26.15	174	8	10.68	1740	0.94	1.86	2.97	11,22	1914	20,6	20.6	12.4 82	0,0393	
P3-44		0.0281	12,000 +/- resudebluak kits	۲	59 73.6		82 86.5		82 P3-44	0.85	18.01	144	1.00	9.72	3112	1.08	2.10	3.18	17.66	3256			1	0.0281	
P3-45	1.83	0.0026	12,000 +/- resudebluek kits	-	59 73.5	L	82 88.5		82 P3-45	0.65	1.63	100	1.00	8.10	482	1.12	2.14	3.24	3.84		-	- 1		0.0025	
P3-50	19.39	0.0303	7,000-6,000 resudebtuak kits	-	78 85.5	5.5 89.5	5, 91.5	Ψ.	19.5 P3-50	0.78	19.39	261	1.00	9.31		58.	2.07	3.14	14.28		١	. 1	14.2	0.0303	
P3-60	, ,	0.0398	7,000-6,000 resudeblusk kits	H	78 85	65.5} 89.5		91.5 89.5 23-60	53-60	0,78	25.36	274	1.00	9,53	3201	0.91	1.83	2,82	19.76	3475	28.3	29.3	17.8	0,0396}	
		URBAN AREAS	8.							K = 0.0132°Cn-0.39	ŀ	TI = 1.8*(1.	TI = 1.8"(1.1-K)"L"(1/Z)/(S"(1/3))	V(S-(1/3))		neralized	Generalized Manning's Equations	quellone							
Notes:	-	1.0	1.01 Open space - poor	•		_										ă	Existing Conditions	SHO	Ş	Developed Conditions	92				
		9,1	1,02 Open space - fair	4		62 e																			
		4.5	1.03 Open space/perks - good	ţ,a	39 61		8									Σ	V1 = 14.8*(S/100)^0.5	0).0.5	<u>-</u>	V1 = 20.2"(9/100)/0.5	τć				
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		1.1	1.18 14,000 sq. ft. lots	_	. 29	22		•																	
		1.1	1,19 25,000 sq. ft, lots	~				m																	
	_	4.2	1,20 40,000 sq. ft. lots	-			<b>8</b>	τ.	,																
	_	1.2	. 21 80,000 sq. ft. lots	1	8	92																			

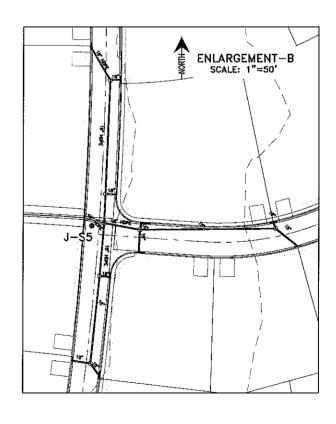
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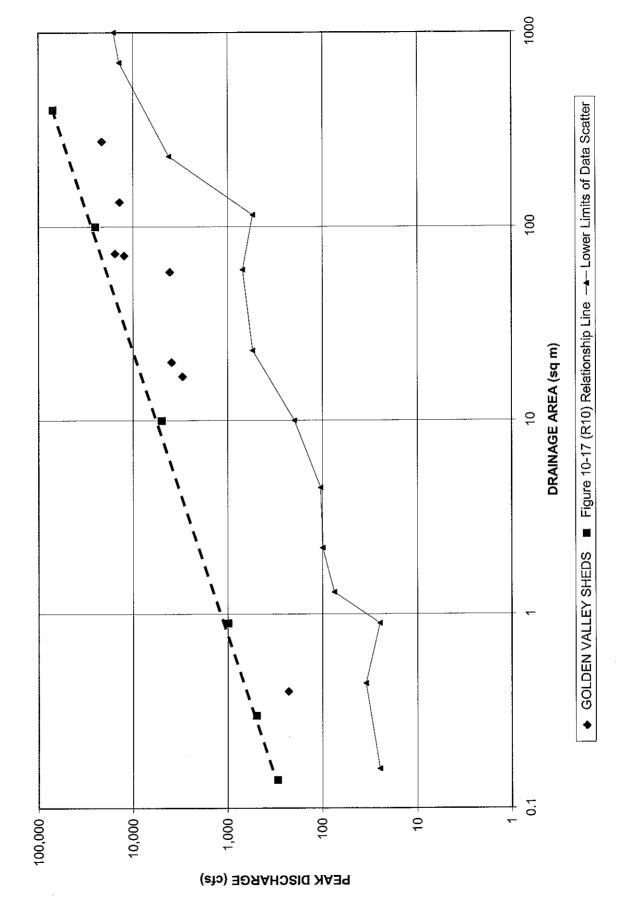
GOLDEN VALLEY RANCH AREA 3 DRAINAGE SUB-SHEDS TECHNICAL DRAINAGE STUDY EXHIBIT Case 09-14814-gwz Doc 1240-22 Entered 08/13/10 16:48:14 Page 61 of 65

GOLDEN VALLEY RANCH

# **APPENDIX E**

# INDIRECT METHODS DISCHARGE VERIFICATION- FLOW RELATIONSHIP

Q100 DATA POINTS FOR GOLDEN VALLEY SHEDS VS RELATIONSHIP LINE FOR REGION 10



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# Golden Valley Ranch Technical Drainage Study

GOI	DEN VALLEY	SHEDS	RELATION	SHIP LINE	LOWER LIM	IT POINTS
Basin	Area (sq mi)	Discharge	Area (sq mi)	Discharge	Area (sq mi)	Discharge
Α	134	13,980	0.14	300	0.16	25
В	1.1		0.3	500	0.44	35
C	71	12,500	0.9	1000	0.9	25
D	16.9	3,020	10	5000	1.3	75
E	20	3941	100	25000	2.2	100
G	0.4	230	400	70000	4.5	105
Н	58.4	4,120			10	200
M	72.8	15,560			23	550
N	134.5	11,950 <sup>2</sup>			60	700
Q	275	21,490			115	550
					230	4200
	-				700	14000
					1000	16000

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GOLDEN VALLEY RANCH

# **APPENDIX F**

PLANS - NOT INCLUDED (SEE GRADING PLANS THIS PROJECT)

Reach Tell River Start of Excited to Citotal	O Total	With Oth Eimil	W.S. Elev	SWILLS	UE G'ETAV	F.G.S.lobelli	I Valichni	Flow Area	*Top Width"   Frolide:#IChin	uo#ebno
	(36)			(4)			(£,0,0)	(#, Ø, Ø, F)		
2815 PF 1	6286.00	2665.00	2669.27	2669.27	2669.93	0.016741	6.63	967.85	69.692	1.01
2545 PE	6286.00	2660.55	2663.93	2664.25	2665.07	0.023286	90'6	754.83	566.09	1.24
2914 PE 12   PE	6286.00	2656.65	2660.56	2660.60	2661.26	0.014051	7.44	972.85	708.22	0.98
100 PEA	6286,00	2652.64	2656.22	2656.69	2657.61	0.024848	8.75	668.19	475.99	1.26
822 - W PFA	6286.00	2648.08	2651.80	2651.91	2652.64	0.015798	5.85	878.15	593.19	0.96
(631 V	6286.00	2645.20	2647.72	2648.15	2649.18	0.024214	6.70	681.54	450.13	1.17
7504 PFIN MARK	6286,00	> 2642.65	2646.08	2646.11	2646.95	0.014380	6.09	864.89	527.60	0.94
Alon Land REAL WINE	6286.00	2640.45	2643.60	2644.06	2645.17	0.027013	8.82	645.96	405.00	1.30
1809   19 PENS	6286.00	2639.65	2642.66	2642.55	2643.59	0.014150	6.98	829.71	461.94	0.96
12087	6286.00	2638.09	2641.41	2641,41	2642.19	0.013641	6.45	902.90	554.55	0,93
(1400) [11] [12] [13] [13] [13] [13]	6286.00	2636.04	2638.41	2638.90	2640.07	0.033284	60.6	_	444.26	1.42
	Lat Struct							•		
	6286.00	2633.40	2635.67	2636.70	2639.82	0.151594	16.36	384.23	389.95	2.90
OSTUDIENTS PER LEGISLATION	6270.31	2631.31	2635.80	2635.77	2636.72	0.013922	7.68	816.06	428.52	0.98
DECOMPANIE PERSON	6250.08	2629.63	2633.29	2633.14	2634.05	0.011472	7.02	890.20	463.61	0.89
100000000000000000000000000000000000000	6250.08	2626.24	2629.83	2629.83	2630.90	0.013938	8.27	755.75	356.36	1.00
9000 C DESTE	6250.08	2617.70	2624 24	2624 36	2625 77	0.044878	5	SC 1/08	020 40	1 07